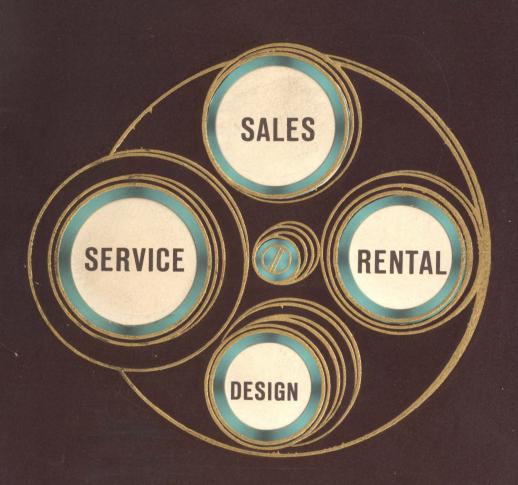
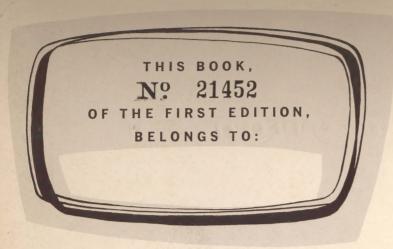
motion picture and photo instrumentation equipment

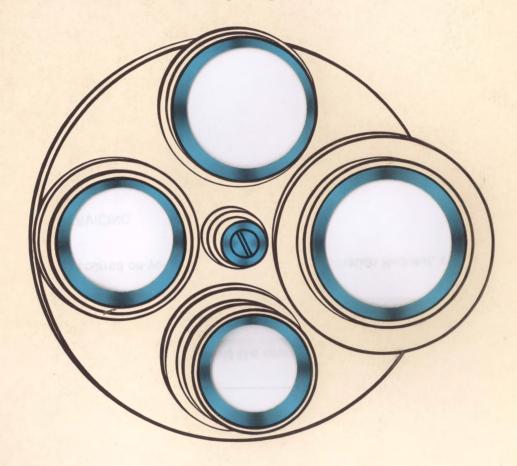


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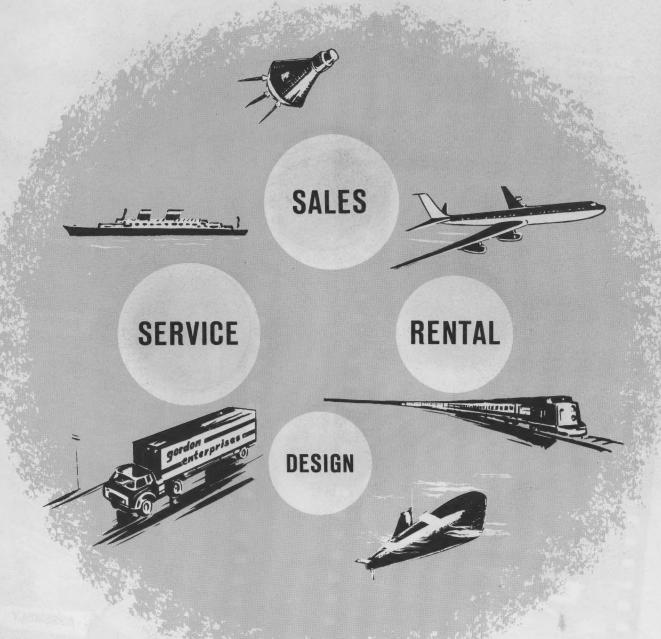


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is the **only** organization in the world to offer **ALL** these advantages in **BOTH** motion picture and photo instrumentation fields and in **BOTH** new and rebuilt equipment.

REPRESENTING THE EQUIPMENT of every leading photographic manufacturer (see page 7).

WORLD'S LARGEST INVENTORY of motion picture and photo instrumentation equipment, spare parts and accessories.

DESIGN and ENGINEERING. Hundreds of contracts — for research, design, development and production of specialized photographic equipment — have been successfully performed by Gordon Enterprises . . . for United States Army, Navy and Air Force and Allied governments, and for many commercial and industrial organizations. Dozens of recent innovations and advances in motion picture and photo instrumentation equipment have been engineered and developed within the complete facilities of Gordon Enterprises.

SPECIALIZED MANUFACTURER and SUPPLIER of photographic components and assemblies for industry and

governments, as well as prime and subcontractor to other manufacturers. Products made by Gordon Enterprises include: Custom Cameras, Lenses and Lens Mounts, Battery Packs, Timing Devices, Camera Motors, Booms, Boresights, Film Magazines, Film Processors, Film Driers, Film Printers, Editing Equipment, Tracking Mounts, Titling Equipment, Projectors.

WORLD'S LARGEST GENERAL MAINTENANCE, Modification and Rebuilding of ALL makes and types of motion picture equipment and accessories.

MILITARY QUALITY CONTROL. All Gordon Enterprises' plants are operated under approved U.S. Government Quality Control to Military Specifications. The same standards and inspection procedures apply to all equipment and services supplied to motion picture studios, commercial photographers, cinematographers, research laboratories and private industry.





the complete rental service for all your photographic requirements ...anywhere...any time

STUDIO, INDUSTRIAL and TELEVISION producers, as well as the armed forces, governmental agencies and space programs, are finding new and worthwhile advantages in rentals of both conventional and special equipment.

GORDON ENTERPRISES Rental Division . . . just a phone call away from you . . . has for years been supplying the day-by-day and special photographic requirements of studios, agencies and industries — to the full satisfaction of the customer's technicians and producers.

THE RENTAL DIVISION keeps pace with advanced instrumentation techniques; as well as with the latest methods of producing, processing and presenting motion pictures. Many projects call for limited-time use of highly modified cameras or large scale lighting, with purchase of equipment impractical or uneconomical. GORDON ENTERPRISES RENTAL DIVISION — THE WORLD'S LARGEST STOCK OF PHOTOGRAPHIC EQUIPMENT — IS YOUR INVENTORY!

JUST AS VITAL TO YOUR PROJECT as selection from the full stocks of equipment, is the competent personnel of Gordon Enterprises Rental Division. The experienced staff will supply all your motion picture needs — from giant camera booms to barn doors — for routine or special

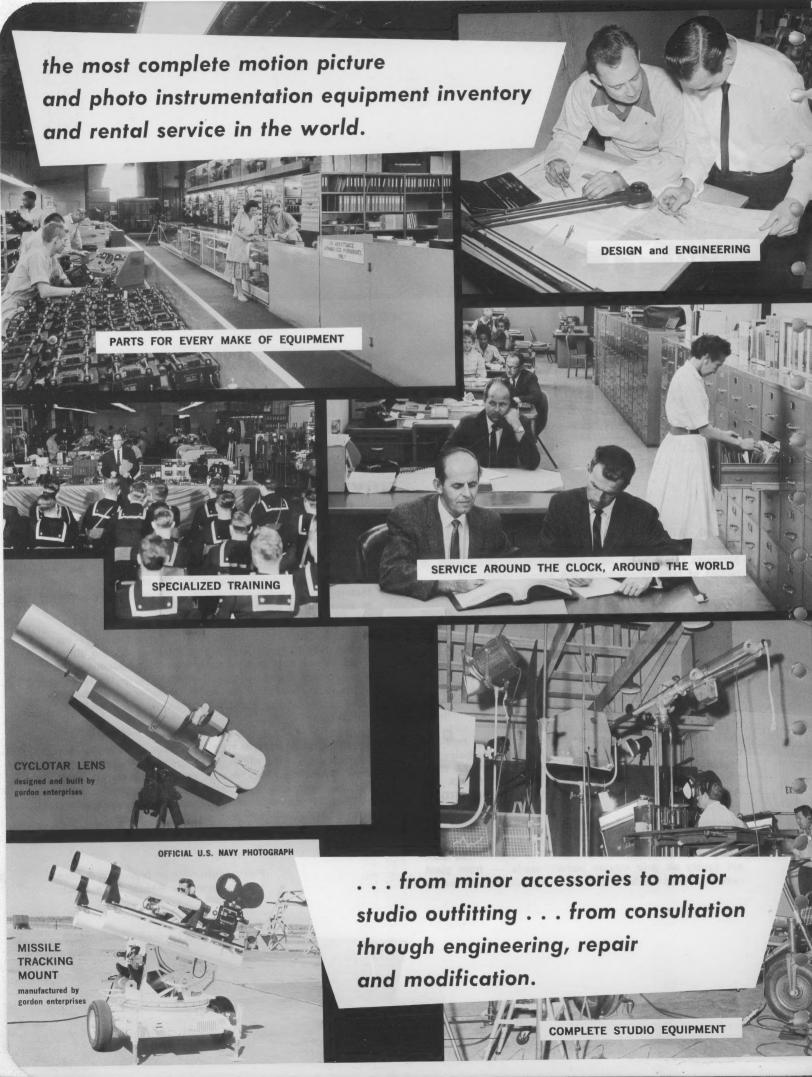
situations . . . anywhere . . . any time . . . on daily, weekly or monthly rental, or long-term lease. Equipment rented from Gordon Enterprises is consistently in use in major studios, industrial plants and TV Stations . . . from feature films to space exploration . . . from TV commercials to aerial and underwater applications.

THE 20,000 SQUARE FOOT BUILDING pictured above — one of five fully-equipped and expertly-manned Gordon Enterprises Plants — is devoted exclusively to continuous maintenance and storage of rental equipment — the largest inventory of its kind in the world. In addition, all products listed in this catalog, standard or modified, are available for rent or lease.

DELIVERY OF RENTED MATERIAL is swift and certain. Most shipments are made within a few hours of receipt of rental order. Trained packers design crating and transit cases that can be readily used for return of equipment. MOST IMPORTANT, you can depend on Gordon Enterprises Qualified Rental Service — the answer to your special camera, laboratory, photo instrumentation or lighting equipment problems.

Please write, wire or phone for Gordon Enterprises new Rental Rate Book.





motion picture, television and photo instrumentation equipment

gordon enterprises

SERVING THE WORLD

For your convenience, this catalog is divided into sections, listed at right. Contents of sections include many products and accessories related to these headings.

For complete index of the world's largest inventory in the motion picture and photo instrumentation fields, please turn to pages 125-128.

Listed alphabetically below you will find names of leading manufacturers of motion picture equipment, with products and services available through Gordon Enterprises.

gordon enterprises maintains

DEALERSHIPS, DISTRIBUTORSHIPS or SERVICE

on products of these manufacturers:

Ace Film Viewers Acmade Acme Camera Akeley Gyro Tripods Albion Optical Altec Microphones ASC Manual Ampro Angenieux Lenses Ana-Tec Processors Ansco Arriflex Corp. Atlas Automax Service

Bach-Auricon
Baltar Lenses
Bausch & Lomb
Bell & Howell
Ben Berg
Benson-Lehner
Beyer Microphone
Blue Point
Bodde
Bolex
Brockway
Bryhn Camera
Burleigh-Brooks

Camera Equipment Cameraflex C. A. R. L. Carlsoncraft Carr Corp. Car-On Carter Carpac Platforms Carter Converters Century Lenses Chicago Aerial Ind. Cinema Engr. Cinema Equip. Co. Cineflex Cameras Cinekad Cinetech Colortran Columbia Enameling Cordin Camera Craig Movie Supply Cunningham Cameras

Dage Television Dalite Screens Dallmeyer Lenses
Davis & Sanford
David White
Daystrom Inc.
Depue Printers
Dormitzer

Eastman Kodak Eclair Ednalite Filters Electro Powerpacs Electrosolids Electro Voice Elgeet Optical Elitar Soligor Lenses Enteco Elmor Company Elwood Photometer Freena

Fairchild Camera Farnan & Seaman Fenjohn Fiberbilt Cases Filmline Fish-Schurman Fisher Booms Florman & Babb Fountain Corp. Frezzolite

Excelsion

Gallet Film Timers
Garden & Williams
Garnelites
Geiss American
General Electric
Goerz American Optical
Gordon Yoder
Gossen Light Meters
Graflex
Griswold Splicers
Grumbacher
Gyro-Stabilizer

Halliburton Inc.
Harrison & Harrison
Harwald
Heiland Flash
Heitz, Karl
Hercules Tripods
Hernfeld Engr.
Hinelight Corp.
Hollywood Camera Co.

Holmes Projectors Houston-Fearless Hulcher Hydra-Power

IT & T

Jefrona Film Cement Johnke

Kadish Camera Kalart Kenyon Products, Inc. Kinevox Kinoptic Lenses Kling Corp. Koch Cases

Lafayette Equip. Leedal Products Linhof

J. G. McAlister

MacBeth Ansco Maco Viewfinders Magna Tech Magnetic Sales Corp. Magnasync Magnetic Recorders Maier-Hancock Mako Equip. Maurer, J. A. Max Factor Micro Record Miller Fluid Heads Minerva Timers Minifon Mitchell Camera Mole-Richardson Morse Co. Moviola Moviscop

National Cine Equip. National Cine Labs Natural Lighting Neumade Neumann Microphone Nikor Processors Norwood Meters Nuclear Products

Pacific Lab

Pan Cinor

Pacific Optical

Paillard Products

O'Connor Heads Oulde Deift (Holland)

Par Products
Pellegrini-Piek
Permaclean
Perrin Bags
Philco
Photogrammetry
P I D
Photo Research Corp.
Photovolt Meters
Polaroid Corp.
Polecats
Ponder & Best
Powers Thermostat
Precision Labs
Prestoseal Splicers
Producers Service

Q. O. S. Corp. Quick-set Tripods

Raby Radiant Screens Rangerhorn Rangertone Rebikoff Meters Red Lake Lab Reel E-Z Processors Reeves Magnastripe Regel Lights Richardson Camera Robot Rolleicord Rolleiflex Ryder Sound Sampson Hall Scheihe Filters Schneider Lenses Schoen Equipment

S.E.I. Meters

Sekonic Meters

Sentinel Housings

Sherman Fairchild

Simplex Spec. Co.
Smith Systems Mfg. Co.
Smith-Victor
SOM Berthiot Lenses
Sony
Space Tapes
Spectra Meters
Stancil-Hoffman
Staticmaster
Steinman Systems
Stevens Bolex
Stevens Trusonic
Stewart Translux
Super Cinephor Lens
Superscope Inc.
S V E
Switar

Taylor-Hobson Lens T D C Tech. Services, Inc. Telequip Lights Thomas Fluid Head Tiffen Filters Traid Camera Translux Triangle Autopods

Sylvania

Upright Scaffolds Uhler Printers Unilectron Inc.

Videotape Enterprises Voltabloc Batteries

Wall Cameras
Walz Norwood
Watson Cameras
Western Cine
Westinghouse Lamps
Weston Meters
Wilcox
Winter Engineering
Wollensak Optical
Worrall Camera Co.

Yardney Silvercel Yolo Conversions

Zeiss, Carl Zeromax Zoomar Corp.

35MM Sound Comoras

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PHOTO INSTRUMENTATION	
High Speed, Pulse, Radar,	

please remember

... while this is the most complete catalog of motion picture and photo instrumentation equipment ever published, it cannot possibly include every photographic item in the Gordon Enterprises' inventory — the world's largest and most complete. If the particular product you seek — new or used — is not listed in these pages, please ask our Sales Service Department.

every product listed in these pages is available for rental.

35MM ARRIFLEX (RR)



The 35MM ARRIFLEX is a true reflex camera. 180° mirror reflex shutter rotates at 45° angle between lens and film plane. In "closed" position it reflects image to finder. In "open" position in reflects image to finder. In "open" position image passes directly on to film. 100% of the transmitted light reaches the eye and the film intermittently. Finder image is brilliant even at small f/stops. Variable shutter on Model IIBV can be edited to any execution from completely. stops. Variable shutter on Model IIBV can be adjusted to any opening from completely open to completely closed by removing lens (to read calibrations) and turning outside knurled knob. Three lens turret. Instant change bayonet type lens mounts are same for 16 or 35 Arri. Variable 16 volt DC motor in hand grip provides camera speeds from 5 to 50 f.p.s. Built-in tachometer. Single claw movement goes through long horizont. claw movement goes through long horizont-al pullout at end of pulldown thus provid-ing "dwelling" time that arrests all film movement just prior to moment of exposure.



A1127 35MM ARRIFLEX MODEL IIB (approx. 180° shutter), with battery cable, neck strap, template for cutting film leader; two lens cavity caps; oiler, test film taken with camera; guarantee and import certificate. Without lenses, motor, matte box or film magazine. See Lens List for Arri mounted lenses. (Gordon Enterprises specializes in the custom adaption of many other ializes in the custom adaption of many other lenses for the Arriflex 35.)

A1128 35MM ARRIFLEX MODEL IIBV, as above, but with variable shutter.



A1129 35MM ARRIFLEX MODEL IIB-S, as above, with fixed shutter opening, specially balanced movement, special tachometer and with special 32 volt DC motor, for operation to 80 f.p.s.; without lenses, matte box or magazine. A1130 Transistorized Governor Controlled Motor, 16 volt DC, 24 f.p.s., with polarized cable.

Variable Speed Motor, New Style, 16 A1131 volt DC.

A1132 Special 24-28 volt DC Motor, variable speed.

A1218 24 volt DC Motor with positive gear drive. Flat bed type construction lowers profile of Arri camera. Special type governor offers controlled speeds.

A1133 Metal Matte Box with 3" square filter

A1134 Adjustable Matte Box, with leather bellows, adjustable extension, geared filter stage accepts standard 3" square filters and also 3" wide oblong graduated filters.

A1135 Dyed in the mass glass Medium Yellow

A1136 Dyed in the mass glass Red Filter.

A1137 Dyed in the mass glass Green Filter.

Dyed in the mass glass Graduated Filter " x 6") pale yellow to red.

first of all ... RELIABILITY

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A1139 Round Filter for Pan Cinor 150 (specify

A1140 Deluxe Compartment Case, Model 200. Holds camera, four 200 ft. magazines, filters and small accessories

A1141 Deluxe Compartment Case, Model 400. Holds camera, three 400 ft. magazines, one 200 ft. magazine, shoulder pod, filters, accessories.

A1142 200 ft. 35mm Magazine with Footage Indicator and Loop Protector.

A1143 400 ft. 35mm Color Magazine with Footage Indicator and Loop Protector.

Magazine carrying case. (Holds three 400 ft. magazines.)

Dustproof Cover for magazine throat of Arriflex 35 film magazine (replacement).

Foam Rubber Eye cushion for camera finder

Lens Cradle for 400mm and 600mm A1148 Kilar with Arriflex 35.

Lens Extension Tube for extreme close-A1149

A1150 Camera Turret Cavity Cap.

Auxiliary Target Finder. A1151

A2634 6 ft. Power Cable

A2635 15 ft. Power Cable



A1152 Sound Blimp 400 for Arriflex 35, with adjustable leather matte box; takes camera and 400 ft. magazine with Arriflex Synchronous Motor. Through-the-lens viewing and follow-focus. All controls operated from outside. Complete with special door for camera, and all necessary accessories. Available only with wood spinning. accessories. Available only with wood shipping and storage case.

A1153 Sound Blimp 1000 for Arriflex 35, with adjustable leather matte box; takes camera and 1000 ft. Mitchell magazine with Arriflex Synchronous Motor. Complete with torque motor for magazine take-up, through-the-lens viewing, remote focusing drive, remote diaphragm adjustment, special door for camera and all necessary accessories. Available only with wood shipping and storage case.

A1154 Synchronous Motor, 110 volt AC 60 cycle, single phase, mounted on platform containing geared mechanism for connection to main drive shaft of Arriflex 35 camera. Complete with footage counter.

A1155 Control Signal Generator.

A1156 Single Frame Motor, 24 volt DC, for time lapse cinematography and for use on animation stands, including geared plate, power supply unit for 110 volt AC and frame counter.

A1157 Special Adapter for mounting Auxiliary Shutter on Arriflex 35.

A1158 Auxiliary Shutter for use in Animation/ Time lapse serves as capping shutter, used with adapter; 8 volt DC solenoid operated.

Intervalometer with Interval A1214 Master Timer 1, 2, 4 seconds and 6 seconds to 25 minutes; Exposure Timer 1 to 10 seconds and controlled 8 volt DC supply.

A1215 Intervalometer same as A1214, but less DC supply and control.

A1216 Intervalometer same as A1214, but less exposure timer.

A1217 Intervalometer similar to A1214, but less exposure timer and DC supply and control.

A1159 Arri Tripod Model 35, with oversized hemispherical universal joint for leveling camera without adjusting legs. Complete with Arri Pan-head (not for use with blimp).

Heavy Duty Blimp Tripod (see Tripod D1511 Section for details).

Optical and Magnetic SOUND SYSTEMS

for most types of professional cameras 8mm • 16mm • 35mm

see pages 10, 11, 12; 18, 19, 20,21; 44 through 58

PHOTO INSTRUMENTATION

engineering • manufacturing

SALES - SERVICE - RENTALS



A1160 Arri 35 Shorty (18" to 25") Tripod; accepts the hemispherical Universal Joint of the Arri Model 35 Tripod.

A1161 Leather Carrying Boot and Cap for Arri Model 35 Tripod.

A1162 Hi-Hat to use Arriflex 35 camera on standard tripods.

A1163 Arri Shoulder Pod, with $^{1}\!/_{\!4}\text{-}20$ and $^{3}\!/_{\!8}\text{-}16$ tripod threads.

A1164 Portable Wet Cell Lead Battery, 16 volt, 6 AH. Supplied with carrying case, shoulder strap, filling syringe. Shipped filled and charged unless specifically ordered "dry."

A1165 Voltabloc Battery, 14V04-D and built-in Minicharger. Improved nickel-cadmium alkaline battery with selector switch for 8.4 volt, 8 AH output for Arriflex 16, or 16.8 volt, 4 AH output for Arriflex 35. Built-in special miniaturized type charger, complete with contour moulded, impact resistant case, shoulder strap and instructions.

A1166 Portable Dry Cell Battery Pack, two 9 volt Eveready No. 716 batteries in fibre carrying case, wired, with 9 volt and 18 volt outlets.

A1167 Combination Power Supply/Battery Charger. For use as direct power supply from regular 110 volt AC, 60 cycle, power line to camera (output 1 to 20 volts DC) or as charger for lead-acid batteries. Built-in ampere meter (1 to 5 amp) and voltmeter (1 to 20 volts). Complete with carrying case (not to be used for charging Voltabloc).

A1168 Trickle Charger for Lead Acid Battery No. 5A701 (110 volts AC).

A1169 Miniaturized Charger for use with Voltabloc battery without built-in charger.

A1170 Replacement Eveready #716 battery for Dry Cell Pack.

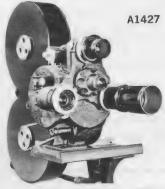
prices and price lists

As you use this book, you will see that it is much more than a compilation. Many pages of charts and other valuable material can be of practical help to you for years to come. In view of the long life of these references, and of the continued developments and changes in motion picture equipment particularly in photo instrumentation—it would not be realistic to include prices of equipment in this catalog. Your inquiries to the Gordon Sales Service Department will bring you current quotations promptly. At the same time, you will be informed of any superseding models of the products you seek.



A1425 35MM BELL & HOWELL EYEMO 71K (militarized version: 71KM) is a single lens model with speeds of 8 to 48 f.p.s. Spring motor allows continuous run of 55 feet, hand crank provision, film footage counter, parallax-correcting positive viewfinder with three objective turret. See Lens List. Gordon Enterprises Custom Modification Department can supply the Eyemo 71K with provision for motor and open back to accept 200 ft. or 400 ft. magazine.

A1426 35MM BELL & HOWELL 71M (militarized version: 71MM) has the same basic features as the model 71K but is equipped with three lens compact turret. See Lens List.



A1427 35MM BELL & HOWELL EYEMO 71Q (militarized version: 71QM) features a three lens offset turret which avoids physical and optical lens interference; turret locking device insures stability when heavy telephoto lenses are used. Direct through-the-lens viewing is possible with prismatic focusing magnifier when used in conjunction with an alignment gauge for parallax correction. This model has been specially adapted to accommodate an electric motor and 200 ft. or 400 ft. external magazines. Motor, magazines and lenses extra. See Lens List.

A1428 200 ft. Film Magazine (displacement type)

A1429 200 ft. Film Magazine

A1430 400 ft. Film Magazine

A1431 110 volt AC-DC Variable Speed Motor

A1432 6 volt DC Variable Speed Motor

A1433 12 volt DC Variable Speed Motor

A1440 BELL AND HOWELL FOCUSING ALIGN-MENT GAUGE permits lateral "rack-over" movement of Eyemo camera when prismatic focuser is being used. Provides full compensation for displacement of image at magnifier and aperture, insuring parallax-free results. Fits between camera and tripod head. A1434 24 volt DC Variable Speed Motor

Select YOUR
TRIPODS
HEADS

DOLLIES CRANES

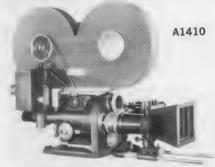
from listings on pages 24 through 31

A1435 110 volt AC, 60 cycle Sync Motor

A1436 Camera Case

A1437 Magazine Case

NOTE: 35mm Bell & Howell Design 71 is available on special order in "militarized" models (olive drab Army finish) with external and internal finishes completely changed to meet environmental and performance finish requirements of Specification 72-53. These models will operate within the specified extreme low to extreme high temperature range.



A1410 35MM BELL & HOWELL 2709 PROFES-SIONAL CAMERA employs "Unit I" fixed-dual-registration pin shuttle film movement providing precision film registration regardless of number of times film is run forward or backward. (Camera can be supplied with Bell & Howell or Mitchell type rack-over on special order.) Camera has four lens turret, prismatic focusing, variable 170° shutter, automatic dissolving shutter. Also available in 16mm or 35mm High Speed Model.

A1411 Sunshade Matte Box.

A1412 Erect Image Viewfinder.

A1413 Finder Extension Bracket.

A1414 1000 ft. Magazine.

A1415 400 ft. Magazine.

A1416 110 volt AC-DC Variable Speed Motor, with tachometer.

A1417 12 volt DC Variable Speed Motor, with tachometer.

A1418 110 volt AC-DC High Speed Motor, with rheostat.

A1419 220 volt AC, 60 Cycle, 3 Phase, Synchronous Motor.

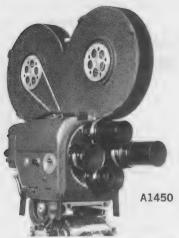
A1420 Ultra Speed Movement. Enables camera to operate at speeds up to 200 pictures per



MOTION PICTURE EQUIPMENT

engineering * manufacturing

35mm cameras



A1450 35MM WALL SINGLE-SYSTEM SOUND CAMERA MARK I is capable of recording a variable area or variable density (please specify) optical sound track simultaneously with the picture on the same strip of film. May be used unblimped. Equipped with Mitchell-type rack-over, through-the-taking-lens focusing, movement with dual pull-down claws and dual registration pins, four lens turret, Bell & Howell lens mounts (see Lens List), adjustable 170° shutter, automatically controlled take-up tension, 24 volt DC rheostat controlled motor, provisions for standard Mitchell viewfinder and 400 ft. or 1000 ft. film magazines. May be purchased with or without sound equipment. May be equipped with many Bell & Howell and Mitchell accessories.

A1451 35MM WALL SINGLE-SYSTEM SOUND CAMERA MARK II is a modified version of Mark I by National Cine Equipment Co., Inc. The electric motor and tachometer have been eliminated from the rear of the camera and replaced by a side motor mount that allows mounting any standard Mitchell motor, of any voltage, with attached tachometer. Camera controls are similar to Mitchell NC. Write for complete details.

Gordon Enterprises is exclusive distributor in Western United States for all products of National Cine Equipment, including 35mm Wall Professional Cameras, 16mm Wall Telecine Recorders (television recording cameras), Tripods, Heads, Motors, Slates.

A1355 35MM ECLAIR CAMERETTE features true reflex focusing and viewing through the taking lens via an angled mirror shutter. Precision film movement produces perfect registration. Divergent turret accommodates three lenses. Shutter adjustable 40° to 200°. 100 ft., 200 ft. or 400 ft. film magazines are easily attached by simply snapping into position. Die cast aluminum alloy construction with black anodized finish. See Lens List.

A1356 16/35MM ECLAIR CAMERETTE has same features as 35mm Camerette but will accept both 16mm and 35mm film. Change-over quickly accomplished by inserting or removing film aperture mask and changing the film gate magazines. Reflex viewer shows both 16mm and 35mm fields. Same lenses are used for both. See Lens List.

A1357 35mm 400 ft. Magazine.

A1358 35mm 200 ft. Magazine.

A1359 35mm 100 ft. Magazine.

A1360 16mm 400 ft. Universal Magazine.

A1361 6-8 volt DC Variable Speed Motor.

A1362 24 volt DC Variable Speed Motor.

A1363 110 volt AC, 60 Cycle, Single Phase, Synchronous Motor.

A1364 220 volt AC, 50-60 Cycle, 3 Phase Synchronous Motor.

A1365 110 volt AC, 50-60 Cycle, Single Phase, Induction Motor.

A1366 Gear Box for hand cranking at 1, 8, or 16 frames per turn.

A1367 Sport Viewfinder.

A1368 Matte Box with double holder for 3" square Wratten filters.

A1369 Extension Tube for all lenses.

A1370 Support for long focus lenses.

A1371 Lens Filter Holder for 25mm-50mm lenses.

A1372 Lens Filter Holder for 18.5, 75mm, 100mm and 150mm lenses.

A1373 Lens Filter Holder for 300mm lenses.

A1374 Follow-focus device for use with 25, 35, 40 and 50mm lenses.

A1375 Dovetail Base to adapt Camerette to any standard tripod.

A1376 Sound Blimp.

A1377 Camera Case.

A1378 Accessory Case.

A1379 Carrying Case for two 400 ft. Magazines.

A1380 Carrying Case for four 400 ft. Magazines.

Better Lighting — Better Photography

WITH THOROUGH UNDERSTANDING

of the vital role of proper lighting in effective motion picture production, Gordon Enterprises Lighting Department offers qualified counsel, service and equipment.

GORDON ENTERPRISES provides studio lighting equipment — including Babies, Juniors, Seniors, 10 K's, all types of arc lights — a full complement of converters, heads and accessories — miles of cable, from 4/0 powerfeed cable to light weight extensions.

FOR BETTER LIGHTING EQUIPMENT call 766-3725, North Hollywood.



A1668 35MM CUNNINGHAM HAND-HELD MOTION PICTURE CAMERA features internal magagazines with dual pilot pin registration, pistol grip handles and a rifle stock to provide firm support. Camera is of special light weight weather-proof and dust-proof design. Camera has a 4 lens self-positioning ball bearing turret with 3 integral lenses and a fourth position for a long focal length telephoto lens. Equipped with 35mm Baltar lens, 75mm Baltar lens and 6 inch telephoto lens. Eye level viewfinder is provided with fields for the three integral lenses and scribed glass finder for long telephotos. Camera is driven by a high speed universal 110 volt AC-DC motor of the governor controlled type for operation at 16, 24 or 32 f.p.s. Magazines are prethreaded and may be rapidly inserted and instantaneously operable. Camera can be operated with heavily gloved hands and all adjustments, including start-stop, focusing, diaphragm setting and turret rotation performed without removing hands from grips.

A1669 10 inch f/4.5 Telephoto Lens

A1670 Carrying case for camera with provision for spare lenses, accessories and spare magazines.

A1671 Critical thru-the-lens Focuser

A1672 Portable Battery Pack



A1675 35MM CAMERAFLEX CAMERA is a reflex type camera using a rotary disk mirror shutter which enables operator to photograph and view through the lens. Three lens turret will accept 35mm, 50mm and 75mm lenses. 24 volt DC motor will operate at speeds from 16 to 64 frames per second. Motor may be mounted underneath or at side of camera. Will accept 200 or 400 ft. magazines. Optical viewfinder system in camera door. Camera speed variable through governor.

A1676 200 ft. Magazine

A1677 400 ft. Magazine

A1678 Spring wound motor

A1679 Hand crank for manual operation

PHOTO INSTRUMENTATION

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gordon enterprises



35MM MITCHELL

ALL 35MM MITCHELL CAMERAS, with exception of the Mitchell R-35 Reflex, employ unique rack-over focusing system with five and ten times magnification. permits positioning either the focusing telescope or the film aperture directly behind the taking lens. Both focusing finder and film aperture possess matching slots for inserting pre-cut mattes employed in trick work. The focusing telescope has two contrast viewing filters and an adjustable eye-piece. An optional separate erect image viewfinder has brilliant field correctly ori ented as to left and right and built-in ad-justable wire mattes that match fields of various focal length lenses. attached to camera with a dovetail bracket and may be adjusted for parallax. Reducing and enlarging adapter lenses are available for wide-angle, telephoto and CinemaScope lenses. Cameras have built-in four-way ad-justable mattes. Various types of wild, synchronous, interlock and stop motion motors, operating at various AC and DC voltages, are available. All models possess a buckle trip that stops the camera in case of film take-up failure. Veeder footage and frame counters and a dial type footage counter operate either forward or in reverse. Shutter openings and lens mountings differ slightly on various models. Camera movements differ in standard, high speed and sound cameras but all possess eccentric type film movements employing dual-registration pins and a double claw pull-down arm engaging four perforations simultane-Movements have timing marks to permit error-free insertion without loss of timing. See Lens List for Mitchell Mounted Lenses. See Tripod List for Various Tripod Legs and Heads.

NOTE: 65mm versions of both the Standard and High Speed (1 to 96 f.p.s.) cameras are available on special order. They differ only in overall dimensions and size of aperture.



A1027 35MM MITCHELL NC SOUND CAMERA operates with a minimum of noise. Operating mechanism is exceptionally quiet and magazines are insulated with sound absorbing material and an insulating plate on camera prevents contact between camera box and magazines. Movement has special arrangement of levers to deliver fast pull down with long dwell on the registration pins. Camera has miniature shutter dial on back showing position of the shutter blades in relation to the aperture. This is an extremely useful feature in synchronizing rear projected process shots. A hand dissolve, or shutter adjusting, lever at the rear of the camera moves in a calibrated segment, graduated from zero to 175°. Lever may be locked at fixed shutter openings in increments of 10 degrees.



A1061 35MM MITCHELL STANDARD CAMERA operates from 1 to 32 f.p.s. Camera mechanism has alternate gears made of fibre. Equipped with 170° variable shutter. Cannot be used for high speed photography because of sleeve type bearings.

NOTE: Camera cannot be converted to high speed by changing movement.

A1062 35MM MITCHELL HIGH SPEED CAMERA will operate from 1 to 128 f.p.s. Camera is similar to Standard but mechanism has all steel gears and ball bearings. Will operate at high speed without strain.

The Equipment You Want

For practical reasons, no catalog can possibly include all items in the Gordon Enterprises inventorylargest of its kind in the world. New and improved models . . . purchases and trade-ins of used products change stock continually. Thus, the camera, accessory or processor you want may be in Gordon warehouses right now - although it's not listed in these pages. The world's largest inventory of motion picture and photo instrumentation equipment is the logical place to find what you seek. You can be sure that Gordon Enterprises has what you want.

A1063 Camera Case.

A1064 Accessory Case.

A1065 Filter Holders and Case.

A1066 1000 ft. Standard Magazine.

A1067 400 ft. Standard Magazine.

A1068 Erect Image Viewfinder with built-in adjustable mattes.

A1069 Erect Image Viewfinder with built-in mattes and automatic focusing prism.

A1070 Follow focus attachment with cams and focus gear rings for five lenses.

A1071 Finder Support Bracket.

A1072 Reducing Finder Adapter Lens.

A1073 Enlarging Finder Adapter Lens.

A1074 Combination Matte Box and Sunshade.

A1075 Wide Angle Matte Box.

A1076 Matte cutting device.

A1077 Varifocal close-up unit.

A1078 Variable Diffuser.

A1079 110 volt AC-DC Variable Speed Motor (8-24 f.p.s.).

A1080 110 volt AC-DC High Speed Motor with rheostat control (24-128 f.p.s.).

A1081 12 volt DC Variable Speed Motor (8-24 f.p.s.).

A1082 220 volt AC, 3-phase Synchronous Motor.

A1083 Motor Case for variable speed motor.

A1084 Motor Case for high speed motor.

A1085 Magazine Case for 2 1000 ft. magazines.

A1086 Magazine Case for 4 400 ft. magazines.

A1087 Standard Size Friction Tilthead.

A1088 Standard Size Tripod Legs.

A1089 Baby Tripod Legs.

A1090 Tilthead Adapter (Hi-hat).

A1091 Boot and Saddle, leather, for tripod and friction head.



A1001 35MM MITCHELL BNC STUDIO SOUND CAMERA is a self-blimped version of the NC model. It is smaller, lighter and quieter than conventionally blimped cameras. Operating controls are never in contact with inner mechanism while the camera is running. Focusing controls are geared to the camera lens and viewfinder. Both camera taking lens and viewfinder image are in identical focus and viewfinder is automatically corrected for parallax at all times. No guess work is required when filming "follow-focus" shots. Remote control selsyn focusing control available as accessory. Three focusing positions are provided: two at front of camera (on left and right sides) and one at back. Bayonet type single lens mount employs locating

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pin to assure proper positioning of lens. Focusing mechanism release lever disengages lens for quick lens change.

NOTE: A 65mm version of the BNC, called the BFC, is available on special order. It differs only in overall dimensions and size of aperture.

A1002 Camera Case.

A1003 Magazine Blimp Housing Case.

A1004 Accessory Case.

A1005 Magazine Case for 2 1000 ft. Magazines.

A1006 Lens Case.

A1007 Motor Case.

A1008 Filter Holders and Case.

A1009 Combination Matte Box and Sunshade.

A1010 Wide Angle Matte Box.

A1011 Viewfinder with adjustable mattes and automatic focusing.

A1012 Reducing Finder Adapter Lens.

A1013 Enlarging Finder Adapter Lens.

A1014 Robot Remote Focus Control.

A1015 1000 ft. Sound Magazine.

A1016 220 volt, AC 3-phase, synchronous motor.

A1017 220 volt, AC 3 phase, interlocking motor.

A1018 220 volt, 3 phase AC/96 volt DC, Multi-Duty Motor.

A1019 110 volt AC-DC Variable Speed Motor (8-24 f.p.s.).

A1020 Variable Diffuser.

A1021 Three inch Square Diffusion Glass (set of 5).

A1022 Triplex Ball Bearing Friction Tilthead and Case.

A1023 Two-speed Precision Gear Head.

A1024 Rolling Tripod.

A1025 Heavy Duty Baby Tripod Legs.

A1026 Tilthead Adapter (Hi-hat).

NOTE: SPECIFY "BNC," "NC," "STANDARD" or "HIGH SPEED" WHEN ORDERING ACCESSORIES.

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A1775 35MM MITCHELL R-35 PORTABLE REFLEX STUDIO CAMERA combines reflex viewing with all of professional features originated and made famous by Mitchell. A new light weight, quiet operating, unusually versatile design replaces the rack-over with full aperture true reflex viewing and focusing and permits hand held operation when required. Camera retains the Mitchell dual-registration pins and dual pull-



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down claws in an eccentric movement operating to 120 f.p.s. Dual shutter system retains best features of both mirror reflex and standard variable shutter. Mirror shutter, set at 45 degrees to the film plane, is used for reflex focusing and viewing. Focal plane variable disc 180° shutter provides positive exposure control over the entire area of the aperture with maximum exposure efficiency. Specially designed inverted 400 ft. film magazine serves as a balanced support when placed on cameraman's shoulder for hand held filming. Standard 400 ft., 1000 ft. and 2000 ft. Mitchell magazines may be used in conventional top position by attaching a simple adapter to rear of camera. Entire mirror optical system, and a new series of Super Baltar lenses in focal lengths from 20mm to 9 inches, were specifically designed for the R-35 by the Bausch & Lomb Optical Company, working in cooperation with Mitchell engineers. The R-35's flexible design permits a complete range of television, wide-screen and scope-type theatrical filming and photo instrumentation work at high speeds.

A1776 Camera Case.

A1777 Magazine Case

A1778 Accessory Case.

A1779 Sound Blimp.

A1780 Blimp Case.

A1781 Standard Magazine Adapter.

A1782 Pip Timer.

A1783 Matte Box.

A1784 Compact Sunshade.

A1785 Sports Finder.

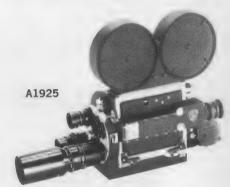
A1786 Tripod Adapter (for inverted magazine).

A1787 Friction Tilthead.

A1788 Tripod Legs.

A1789 Baby Tripod Legs.

A1790 Underwater Housing.



A1925 35MM MITCHELL SINGLE-SYSTEM CAMERA features the same precision construction and features as the NC model. It is equipped with RCA variable area galvanometer for sound-on-film recording simultaneously with the picture on the same strip of film.



A1455 RABY BLIMP for Mitchell NC Camera.

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16MM ARRIFLEX (RR)



The ARRIFLEX 16 reflex motion picture camera features an optically flat first surface coated mirror shutter rotating at a 45° angle between the lens axis and film plane. In the "closed" position it reflects the image into the optical system of the finder. In the "open" position the image passes directly onto the film for exposure. All of the light transmitted by the lens is avail-able intermittently to both the finder and the film. This insures a brilliant image in the finder, even when the lens is stopped down. Arriflex's thru-the-lens focusing and viewing eliminates parallax problems, the need for multiple finders and masks. Cameraman can frame, follow-focus and view a 10-time magnified, correctly oriented image continuously through the highly cor-rected optical system. Handles 100 ft. internal spools and 400 ft. external magazines.



B1175 16MM ARRIFLEX with divisible finder system and provision for interchangeable ground glass, built-in buckle switch and buckle switch override, and battery cable lock, battery cable, neck strap, oiler, two lens cavity caps; test film taken with camera; guarantee and import certificate, without motor, lenses or matte box.

SEE LENS LIST for Rodenstock, Schneider-Kreuznach, Taylor-Hobson-Cooke, Carl Zeiss, Tegea, Berthiot-Pan Cinor, Angenieux, Kilfitt-Munich Makro and Telephoto lenses in Arriflex Mounts. Gordon Enterprises can custom adapt many other lenses on special order.

B2192 Deluxe Model A Case (for camera only)

B2193 Deluxe Model B Case (for camera and 400 ft. magazines)

Governor controlled Motor for Arriflex 16 (24 f.p.s.), 8 volts DC. (Also available for 16 f.p.s.).

B1177 Variable Speed Motor, 8 volts DC.

B1178 Matte Box, adjustable, with one stationary and one rotatable filter stage.

B2002 Leather Boot and Cap for Standard 16

B2203 Fibre Carrying Case for Standard 16 tripod

B2204 Fibre Carrying Case for Shorty 16 tripod

B2194 Combination Shoulder Pod & Pistol Grip

Filters for Black and White Films: Solid dyed optical glass filters, rectangular to slide into matte box. (Gordon Enterprises can supply any other filters desired.)

B1179 Medium Yellow Filter.

B1180 Red Filter.

B1181 Orange Filter.

B1182 Green Filter.

B1183 Graduated (red to vellow) Filter.

Filters for Color Film: Round Wratten-type filters in rectangular metal frame to fit matte box. (Gordon Enterprises can supply any other filters desired.)

B1184 UV Filter, round, screws into rear of matte box.

B1185 No. 1-A (Skylight).

B1186 No. 85 converts Type A Kodachrome or Tungsten Anscochrome for use in daylight.

B1187 Polarizing Filter, rectangular.

B1188 Polarizing Filter, round, screws into rear of matte box.

Filter Holder, rectangular, to fit matte box. Holds both 2 inch square glass or gelatine filters; with one frame for gelatine.

B1190 Extra frame for gelatine filters.

Filter Holder Kit, consists of filter holder and 5 filter frames, complete with fitted leather case.

B1391 Special prescription eye lens holder 17mm prescription lens to eyepiece. adapts Only for cameras with divisible finder.

B1392 Slip-on ring only for use with above adaptation.

rentals

Most of the motion picture and instrumentation equipment listed in this catalog is available on a daily, weekly or longerterm basis. Fast air shipment reaches most out-of-town locations within a day. Rental orders are given priority treatment, and are shipped same day if necessary. Write, wire or telephone your requirements.

B1192 Periscopic Finder Attachment.

B1193 Foam Rubber Eve Cushion to fit over eyecup.

B1194 Auxiliary Target Finder (mention camera serial number).

B1196 400 ft. 16mm Film Magazine (requires Torque Motor).

Torque Motor for 400 ft. 16mm mag-B1197 azine (only one motor needed per camera).

B1198 Core Adapter for Magazine (replacement).

B1199 Camera Magazine-opening Cover (replacement)

B1200 Fibre Carrying Case for three 400 ft. 16mm magazine and one Torque Motor.



Sound Blimp for Arriflex 16; complete with follow-focus system at side and back (for operator and assistant); quick-change camera mount; adjustable matte box with built-in holder for 3" sq. filters. Roof prism optical finder system. Takes Arriflex 16 camera with 400 ft. magazine and synchronous motor (requires Footage Counter No. B1205). Available only with Fitted Wood Shipping and Storage case.

B1202 Synchronous 42 volt Motor for Arriflex 16 (24 f.p.s.); for 110 volts AC, 60 cycle, (also available for 50 cycle AC). Complete with Power Supply.

B1203 Power Supply ONLY.

B1204 Synchronous Motor ONLY.

Three-Digit Geared Footage Counter for use with synchronous motor in blimp (visible through blimp window).

B1206 Broad Light (clamps on front handle of blimp)

B1207 Mechanical Phase Shifting Attachment for Arriflex 16 synchronous motor, for kinescope recording applications. (The camera must be provided with a shutter opening equivalent to 144°: available on special order.)

B1208 Control Signal Generator, with electric slate, complete, as original factory installation only, additional to price of camera.

B1209 Control Signal Generator only (does not include electric slate which cannot be added, once camera is assembled).

B1210 Inching Attachment, for use with Arriflex 16 Governor Controlled motor and blimp (in connection with control signal synchronous recording systems).

Arri Single Frame Mechanism, with 4digit frame counter with outlets (for remote controlled frame counter, flash contact and auxiliary shutter); interchangeable gears for various exposure times (works in conjunction with any Arriflex 16 motor).

B2215 Special Geared Head for Arriflex 16 single frame mechanism to provide double pulse operation for time exposures.

B2216 Auxiliary Shutter for use with Single Frame Mechanism or Animation/Time Lapse Motor; caps lens automatically, attaches to matte box boom, for 8 volt DC current.

B2217 DOM Animation/Time Lapse Motor with built-in frame counter and flash synchronization.

B1213 Geared Hand Crank Mechanism for manual drive of the Arriflex 16 (Useful for filming inanimate subject in extremely poor light).

Gordon Enterprises modification of Arriflex 16 to accept the Magnasync Nomad re-corder. Service can be performed on new cameras or on your existing model.



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16mm cameras



B1214 MASTER INTERVALOMETER; with Interval Timer to provide frame intervals of 1, 2, seconds and 6 seconds to 25 minutes, and with Exposure Timer to provide time exposure from 1 to 10 seconds; built-in, controlled 8 volt, DC power supply. (Requires single frame motor modified for double pulse operation; one pulse operation; one pulse operation; one pulse to lesse to open camera shutter - one pulse to close camera shutter).

B1215 Intervalometer, same as B1214 with Interval Timer and Exposure Timer, but less DC supply and control.

B1216 Intervalometer same as B1214 with Interval Timer and controlled DC supply, but less Exposure Timer. (Requires single frame motor to operate complete cycle on single pulse.)

B1217 Intervalometer, similar to B1214 but with Timer only, less Exposure Timer and less DC power supply and control.

> INTERVALOMETERS for use with Arri or DOM animation/time lapse units. Master control to operate camera, lights, auxiliary shutter at predetermined intervals.

Portable Wet Cell Lead Acid Battery, 8 volts 6 AH. With foam-rubber lined case, shoulder strap and filling syringe. Shipped filled and charged, unless specifically ordered "dry."

B1219 Voltabloc Battery #7V04-D and Mini-Charger, combined. Battery: Improved nickel-cadmium, alkaline, 8 volts 5 AH. Charger: Builtin special miniaturized type. Complete with case and shoulder strap.



A3051

A3051 16MM KODAK REFLEX SPECIAL is designed for professional production filming. Heart of the camera is its reflex focusing system incorporating a 170° mirror shutter angled at 45° to the film plane. Images entering the taking lens are alternately exposed to the film by an open segment of the shutter and to the ground glass of the viewer system by a mirror mounted on the back of the shutter segment. There is no light loss at the film, and the scene is constantly viewed through the taking lens by the camera operator. Parallax problems are eliminated since the scene may be continuously framed and focused. A variable shutter operates

behind the mirror shutter. It can be locked at set positions of $\frac{1}{4}$ and $\frac{1}{2}$ open and fully open and closed, or varied from open to closed or vice versa for making fades and dissolves. Fully closed the camera may be reversed and film backed up for double exposure. Image is viewed on a ground glass with 10X magnification. Center of image may be critically focused at 20X magnification. Eye piece can be individually focused to operator's eye. A lever closes off the viewing system when not in use. Basic camera permits use of tem when not in use. Basic camera permits dise of 100 ft. internal daylight loading spools. 400 ft. and 1200 ft. external film magazines are gear driven, no belts are employed, and may be reversed. Camera body is die-cast aluminum unit. Nylon gears, lubricated for life, are strong, quiet and free from play. Three electric motors are available: synchronous, variable and animation. Three lens turret is spring-loaded and mounted on ball bearings. Lenses employ a new Type R bayonet mount with clamp fasteners. A single large sprock-et controls upper and lower film loops. Either single or double perforated film, with or without fullwidth magnetic sound track, may be quickly and easily threaded. Film is transported by a single claw with a tungsten carbide tip for long wear. Registration is accurate to better than half a thousandth of an inch at 24 f.p.s. Film in gate thousandth of an inch at 24 f.p.s. film in gate is positively guided on the sprocket side, spring-loaded from the other side. Pressure plate is 7½ times length of film aperture, thus minimizing "film set." A "spaced-gate" lessens possibility of film abrasion. Pressure plate opens wide for easy cleaning and inspection. A new line of Kodak Ekton lenses, ranging in focal length from 10mm to 150mm, has been developed for this camera. Also available is a new f/2.2 zoom lens with variable focus from 17.5mm to 70mm. Gordon Enterprises Custom Optical Shop mounts many other lenses for Kodak Reflex Special. (See Lens List.) Built-in buckle switch automatically stops camera in event of film jam or take-up failure. Bracket on outside of viewer permits attaching a Mitchell-type viewfinder.

A3052 Camera Case

A3053 Variable Speed Motor

A3054 Synchronous Motor

A3055 Stop Motion Motor

A3056 400 ft. Magazine

A3057 Case for 400 ft. Magazines

A3058 1200 ft. Magazine

A3059 Case for 1200 ft. Magazines

A3060 NCE Magazine Adapter for Mitchell 16 Magazines

NCE Motor Adapter for all NCE Motors A3061 (See NCE Motor Listing)

A3062 NCE Sunshade Matte Box (with bellows)

A3063 NCE Close-up Adapter

A3064 NCE Sound Barney

Magnetic Sound Recording Unit A3065

A3066 Kodak SR Lens Adapter

Projectors pages 96 - 101

B1920 16MM BERNDT-MAURER CAMERA features registration pin film movement which may be removed for cleaning without disturbing tim-ing. Internal rack-over, 40 and 64 frame automatic dissolving shutter. Three lens turret and viewfinder with parallax adjustment. 400 ft. geared magazines, 12 volt DC variable speed motor and 110 volt AC synchronous motor.

B1921 Stop Motion Animation Motor.



B1245 16MM MAURER MODEL 150 CAMERA offers an accuracy of 2½ times that of 35mm studio cameras. Its intermittent movement and gate are so designed that they do not depend upon perforation accuracy to produce perfect registration because the pull-down claw, which fills the perforation from top to bottom, serves as the registration pin. Since registration is accomplished at the same perforation used to pull down the film, greater film shrinkage can be tolerated. Built-in slot in front of film aperture allows use of split-screen and other special effects masks. The camera is equipped with a high-power focusing system which guarantees critically sharp focus. It has the largest erect image viewfinder available, with optics equivalent to a well corrected anastigmat lens. Finder automatically corrects for parallax as it is focused. Camera utilizes a through-the-lens rackover focusing system with aerial image seen through clear glass. All controls and indicators are constantly at hand and in view from cameraman's shooting position behind the viewfinder. Miniature monitor shutter on rear of camera. Three lens turret will accommodate any "C" mount lenses. See Lens List. 235° dissolving shutter is adjustable to any opening and can make automatic 40 and 64 frame fades and dis-solves. Buckle trip operates if bottom loop or take-up fails. New improved clutch assures perfect tension on take-up regardless of film load or magazine capacity.

B1259 Camera Carrying Case is rigid, sturdy, made of lightweight fiberboard. It will hold the camera with lenses attached, two 400 ft. magagines, two motors, viewfinder, sunshade, motor cables, hand crank, film meter, filters, etc. A two-case set-up, also available, splits weight and provides extra accessory space. (Specify case desired.)

B4250 16MM MAURER MODEL 05 CAMERA is available used and may be rebuilt to incorporate most of the Model 150 features.



B1258 Sound Blimp for Maurer Camera is streamlined, uses external viewfinder and follow-focus cam system for lenses from 15mm focal length up. Accepts Camera with 400 ft. mag-azine. Accessory hood accommodates 1200 ft. magazine.

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16mm cameras

B1256 400 ft. Magazine, interchangeable for camera or recorder.

B1257 1200 ft. Magazine, interchangeable for camera or recorder.

B1246 110 volt AC-DC Variable Speed Motor (8-48 f.p.s.) with rheostat and tachometer.

B1247 110 volt AC, Single Phase, Synchronous Motor.

B1248 220 volt AC, Three Phase, Synchronous

B1249 12 volt DC Governor Controlled Motor (24 f.p.s.).

B1250 12 volt DC Variable Speed Motor (8 to 48 f.p.s.).

B1251 110 volt AC Synchronous Stop Motion Motor, with single speed.

B1252 Similar to above, but three speed.

B1253 Sunshade and Filter Holder.

B1254 Sports Viewfinder.

NOTE: Many accessories, similar to those listed for the Maurer Model 150, are available for the Maurer Model 05 and the Berndt-Maurer cameras.

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B1095 16MM MITCHELL PROFESSIONAL CAMERA is scaled down version of the famous 35mm Mitchells, with special features incorporated for 16mm users. Camera has a 230° shutter delivering an additional half-stop exposure at same lens opening as cameras possessing 180° shutters. The film movement will operate from 1 to 128 f.p.s. Sound Blimps equipped with follow-focus attachment, will handle either 400 ft. or 1200 ft. magazines (please specify). Various accessories similar to 35mm Mitchells are available. See Lens list for Mitchell mounted lenses. See Tripod list for various types of tripods particularly suitable for this camera.

B1096 Camera Case.

B1097 Accessory Case.

B1098 Filter Holders with case.

B1099 Sunshade, Filter and Pola-screen Holder.

B1100 Erect Image Viewfinder with built-in mattes.

B1101 Erect Image Viewfinder with built-in mattes and automatic focusing prism.

B1102 Follow-focus attachment with cams for five lenses.

B1103 Reducing Finder Adapter Lens.

B1104 400 ft. Magazine.

B1105 1200 ft. Magazine.

B1106 12 volt DC Variable Speed Motor (1 to 32 f.p.s.).

B1107 24 volt DC Variable Speed Motor (16 to 64 f.p.s.).

B1108 110 volt AC-DC Variable Speed Motor (1 to 32 f.p.s.).

 $\mbox{\bf B1109} \quad 110 \mbox{ volt AC-DC High Speed Motor}$ (48 to 128 f.p.s.).

B1110 110 volt AC 60 Cycle, Single Phase, Synchronous Motor.

B1111 220 volt AC, 60 Cycle, Three Phase, Synchronous Motor.

B1112 220 volt AC/96 volt DC, Multi-Duty Motor.

B1113 220 volt, AC, Three Phase, Interlocking Motor.

B1114 110 volt AC, Stop motion Animation Motor.

B1115 Motor Case (specify motor).

B1116 Mitchell Sound Blimp (specify magazine capacity).

B1117 Rolling Tripod.

B1118 Friction Tilthead, ball bearing type (for Sound Blimp).

B1119 Tripod Legs.

B1120 Baby Tripod Legs.

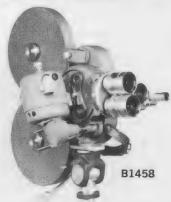
B1121 Tilthead low mount (Hi-hat).

B1122 Boot and Saddle for tripod and friction head.



B1456 16MM BELL & HOWELL 70DR CAMERA features 100 ft. internal film load, spring motor exposing 22 feet of film at single winding and operating from 8 to 64 f.p.s. Three lens turret is gear-coupled to three objective viewfinder turret, equipped with critical lens focuser, forward or reverse hand crank. Accepts "C" lens mount. See lens list.

NOTE: This and earlier versions can be adapted by Gordon Enterprises for electric motor and external 400 ft. film magazines. B1457 16MM BELL & HOWELL 70HR CAMERA is similar to model 70DR but possesses following additional features: upper rewind knob (for taking up film when back-winding for special effects), shutter stabilizer, Veeder footage counter, adaptation for accessory external film magazine (either 200 ft. or 400 ft.) and accessory electric motor (specify type).



B1458 16MM BELL & HOWELL 70SR CAMERA is similar to model 70HR but has one speed only: 128 f.p.s. for slow-motion photography.

B1459 200 ft. Film Magazine (displacement type) for models 70HR and 70SR.

 ${\bf B1460}\quad 400$ ft. Film Magazine for models 70HR and 70SR.

B1461 Combination Case for camera and accessories (70DR only).

B1462 Carrying Case for 70HR and 70SR. Accommodates camera, magazine, motor and accessories.

B1463 12 volt DC, Variable Speed Motor (8-64 f.p.s.).

B1464 24 volt DC, Variable Speed Motor (8-64 f.p.s.).

 $\mbox{\bf B1465} \quad 115 \quad \mbox{volt AC-DC, Variable Speed Motor} \ (8-64 \ \mbox{f.p.s.}).$

B1466 115 volt AC-DC, High Speed Motor (128 f.p.s. speed only).

B1467 24 volt DC High Speed Motor 128 f.p.s. speed only).

B1468 115 volt AC, 60 Cycle, Single Phase Synchronous Motor.

NOTE: 16MM BELL & HOWELL DESIGN 70 CAM-ERAS are available on special order in "Militarized" models (olive drab Army finish) with external and internal finishes completely changed to meet environmental and performance finish requirements of Military Specification 72-53. These models will operate within specified extreme low to extreme high temperature range.

B1906 16MM BELL & HOWELL FILMO DESIGN 200 AUTO-LOAD MAGAZINE CAMERA uses prethreaded 50 ft. film magazines, single lens "C" mount and positive viewfinder system, Single frame and continuous run release. Operates at 16, 24, 32, 48 or 64 f.p.s. Spring motor will run 12½ feet of film at one winding.

B1907 16MM BELL & HOWELL DESIGN 200 TWIN AUTO-LOAD CAMERA similar to above but features 2 lens turret.

B1908 16MM BELL & HOWELL DESIGN 200 AUTO-MASTER CAMERA is similar to above but features 3 lens turret.



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B1911 16MM BELL & HOWELL DESIGN 200EE CAMERA uses pre-threaded 50 ft. film magazines. Single lens "C" mount with electric eye that automatically sets exposure. Powered by inexpensive, easily replaced, long life mercury cell batteries. Single frame and continuous run release. Will operate at 16, 24, 32, 48 or 64 f.p.s. Spring motor will run 12½ feet of film at one winding.

NOTE: 16MM BELL & HOWELL DESIGN 200 CAMERAS are available in single and twin lens models and on special order in "Militarized" models (olive drab Army finish) with external and internal finishes completely changed to meet environmental and performance finish requirements of Military Specification 72-53. These models will operate within the specified extreme low to extreme high temperature range.

B1804 16MM CINE-KODAK K-100 CAMERA features governor controlled spring motor which exposes 40 feet of film at single winding. Operates from 16 to 64 f.p.s. Fixed 165° shutter. Telescopic type finder designed so that 25mm lens shows subject actual size. Finder focus adjustable for individual eyesight. Individual viewfinder objectives provide full finder image with any lens, no reduction in size with telephoto lenses. Camera can be hand cranked either forward or backward for special effects. Camera is adaptable to electric motor drive by using motor drive shaft assembly. Single lens model is available equipped with either Cine Ektar 25mm f/1.6 or Cine Ektar 25mm f/1.9 lens. See Lens List for other available lenses.



B1805 16MM CINE-KODAK K-100 CAMERA same as above but with three lens divergent

B1806 Carrying Case.

CINE-KODAK K-100 CUSTOM ADAPTATIONS

B1739 Model KFM-400CM 400 ft. magazine adaptation and film meter modification.

B1740 Camera spring motor driven take-up for above.

B1741 Model KFM-400EGM Same as 400CM except with electric motor driven take-up.

B1742 PAR-adapted Mitchell magazines.

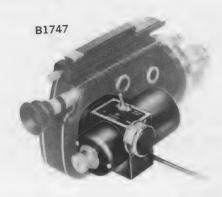
B1743 $1\frac{1}{2}$ inch viewfinder extension, if desired, when 400 ft. magazine is installed.

B1744 Rubber eyeshield and adapter, if desired.

MOTOR DRIVES (PAR MOTOR MOUNT REQUIRED)

B1745 Model SYMK 115 volt AC, 60 cycle, synchronous motor, 24 f.p.s.

B1746 Model NSSYMK 115 volt AC, 60 cycle. synchronous motor, non-sparking model.



B1747 Model EGMK-864 115 volt AC electric governor controlled universal motor, 8-64 f.p.s. with tachometer.

B1748 12 volt DC-AC inverter for 115 volt AC motors.

B1749 Model EGMK-864-12 12 volt AC-DC camera governor controlled universal motor, 8-64 f.p.s., with tachometer.

B1750 DC control unit for 12 volt AC-DC

B1751 AC control unit for 12 volt AC-DC motors.

B1752 PAR motor mount, all motors.

B1753 Kodak motor drive shaft, all motors.

B1754 PAR electric motor driven take-up for 400 foot magazine.

B1755 Time lapse drives — 12 volt DC universal (also operable from 115 volt AC, 60 cycle).

B1756 Filter slot, for turret model only, permits use of behind-the-lens filters. Includes 3 filter holders and case.

B1757 32 inch Cable release in metal sheath.

B1758 Special viewfinder objectives, including 10mm and 250mm, to permit use of lenses other than Ektars.

B1759 Critical focuser — direct type for insertion in aperture when needed.



B1795 16MM CINE-KODAK SPECIAL II CAMERA features interchangeable 100 ft. or 200 ft. film chambers which are pre-threaded. Two lens divergent turret accepts Kodak Cine Ektar Lenses in Type "S" mount. Governor controlled spring motor exposes 38 feet of film at single winding. Operates from 8 to 64 f.p.s. as well as single frame. Adjustable 165° shutter is pro-

vided with Open. ½-Open, ¼-Open and Closed (notched) positions. Automatic fades and dissolves can be produced. Single frame release makes time-lapse photography possible. Six special effects masks provided. Camera is available equipped with either 25mm Kodak Cine Ektar f/1.4 or 25mm Kodak Cine Ektar f/1.9 lens. See Lens List.

B1796 100 ft. Film Chamber.

B1797 200 ft. Film Chamber.

B1798 Cine-Kodak Special Tripod.

B1799 Reflex Finder Image Magnifier.

B1800 Optical Finder.

B1801 Open Frame Sports Finder.

B1802 Carrying Case for Camera with 100 ft.

B1803 Carrying Case for Camera with 200 ft.

B1807 Lens Adapter to mount any "C" mount lens to Cine Special.

everything YOU NEED FOR BETTER PHOTO INSTRUMENTATION

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Gordon Enterprises are pioneers in the photo instrumentation field and are familiar with all equipment available for filming the many complex data recording jobs required by both military and industrial photo engineers. The many cameras and accessory equipment available to do the diverse assignments demanded by aircraft, missile, electronic and allied fields are increasing in number each day as demands on the science of photo instrumentation become more complex. Only an organization such as Gordon Enterprises has the personnel, experience, scope, background and facilities to properly equip you with exactly what you need to do the job. If the particular equipment you need is not available we will provide it by modifying existing cameras to do the job.

CINE SPECIAL MODEL II CUSTOM ADAPTATIONS

B1700 Model CT-400-2 Four lens turret.

B1701 Model CT-400-FS-3 Filter slot, including 3 holders and case.

B1702 Extra Filter holders.

B1703 Extra cases for filter holders.

B1704 Model CT-400-VF2 Special viewfinder tube (four lens turret), for 200-foot film chamber.

B1705 Model CSBS Beamsplitter for throughthe-lens viewing while shooting.

B1706 Model RFM-200-1 Reflex finder magnifier with rubber eyeshield.

B1707 Model SPT Sport Finder.

PHOTO INSTRUMENTATION

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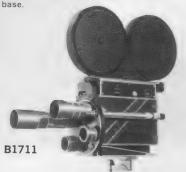


DATA RECORDING UNIT

B1708 Model DRU-C1 Data image in corner of frame.

B1709 Model DRU-S1 Data image superimposed on entire frame.

B1710 Model DTR-100 Time recorder, including data recording unit, motor driven 5-digit counter and base.



B1711 Model 4FM-300-2 100-foot chamber adaptation for 400-foot magazine.

B1712 PAR-Adapted Mitchell magazines.

B1713 Model STU-4 PAR Spring take-up.

MOTOR DRIVES/CUSTOM ADAPTATIONS

B1714 Model SYM-100-1 115 volt AC, 60 cycle, synchronous motor, 24 f.p.s.

B1715 Model SYM-100-2 230 volt AC, 50 cycle, 3-phase synchronous motor, 24 f.p.s.

B1716 Model SYM-100-3 115 volt AC, 60 cycle, synchronous motor, 100,000 f.p.h.

B1717 Model NSSYMD Non-sparking synchronous motor.

B1718 Model EGMD-864 115 volt AC electric governor controlled universal motor, 8-64 f.p.s., with reversing switch and tachometer.

 $\ensuremath{\mathbf{B1719}}$ 12 volt AC-DC inverter for 115 volt AC motors.

B1720 Model EGMD-864-12 12 volt AC-DC camera governor controlled universal motor, 8-64 f.p.s., with reversing switch and tachometer.

B1721 Model EGMD-12T DC control unit for 12 volt AC-DC motors.

 $\mbox{\bf G1722}$ AC control unit for 12 volt AC-DC motors.

B1723 Model CS SRB Special relieved base, all motors (not required for cameras equipped with PAR four lens turret).

B1724 Model SFRS Single frame release solenoid (115 volt AC).

B1725 Model SFRS-12 Single frame release solenoid (12 volt DC).

B1726 Model SFTER Single frame time exposure release.

TIME LAPSE AND ANIMATION DRIVES FOR 115 VOLT AC, 60 CYCLE, SYNCHRONOUS CONSTANT EXPOSURE

B1727 Model TLD-1 Single speed — choice of speeds — 1 or $1\frac{2}{3}$ f.p.s. continuous, or manual single frame.

B1728 Model TLD-2 Single speed -4 f.p.s. continuous or automatic single frames at intervals of 1, 2 & 4 f.p.s. and 2 and 4 seconds per frame. Also time exposure feature.

B1729 Model TLD-3 Two speed -4 & 24 f.p.s. at intervals 1, 2 & 4 f.p.s. and 2 & 4 seconds per frame.

B1730 Model TLD-4 Three speed — 1 & 10 f.p.s. and 1,000 f.p.m.

B1731 Model TLD-5 Single speed — 4 f.p.s. continuous or automatic single frames at 1, 2 & 4 second intervals, plus infinitely variable intervals from 6 seconds to 20 minutes.

MISCELLANEOUS CINE SPECIAL MODIFICATIONS

B1732 Model CSC-1 "C" mount turret for Cine I.

B1733 Model CSC PC-II Modify Cine II turret to use "C" mount Pan Cinor lens.

B1734 Model CSC PC-II-I "C" mount adapter to permit use of modified Pan Cinor on "C" mount cameras.

B1735 Model CSMVF Furnish and install Maier-Hancock viewfinder on Cine Special I or II.

B1736 Model CS YAD Furnish and install Yolo automatic dissolve.

B1737 Model CS KLM mount for 600mm Kilfitt lens.

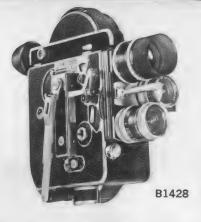
B1738 Model CS MTL Timing lights — 200' or 400' magazines.

B1425 16MM BOLEX H-16 REFLEX features prismatic through-the-lens focusing which provides parallax-free, full frame viewing during filming. Automatic threading device loops the film and inserts it into gate and around sprockets. Three lens turret. Built-in filter slot permits single, behind-the-lens gelatin filter to serve all lenses. Speeds from 8 to 64 f.p.s. 140° shutter. Camera spring may be disengaged and film hand cranked backward or forward for entire roll. Takes 100 ft. internal film spool. (Various 400 ft. magazine adaptations, electric motors and other professional accessories available on special order.) With 25mm Lytar f/1.8 lens. (See Lens List for various focal length lenses available.)

B1426 16MM Bolex H-16 with 25mm Pizar f/1.5 lens

B1427 16MM Bolex H-16 with 25mm Switar f/1.4 lens

NOTE: STEVENS ENGINEERING, NATIONAL CINE EQUIPMENT, PELLEGRINI-PIEK, JOSEPH YOLO and PAR can supply many custom adaptations and special accessories for the Bolex, such as rackover, prismatic focuser, synchronous and variable motors, external magazines, dissolving shutter, etc. Write for details.



B1428 16MM BOLEX H-16 REX is similar to the REFLEX model except it features a built-in variable 143° shutter which allows precise exposure control and the making of fades and dissolves. With 25mm Lytar f/1.8 lens.

B1429 16MM BOLEX H-16T has the same features as the REFLEX and REX models plus reflex through-the-lens focusing and variable 143° shutter. With 25mm Lytar f/1.8 lens.

B1430 16MM BOLEX H-16T with three lenses 16mm Switar f/1.8, 25mm Lytar f/1.8 and 75mm Yvar f/2.8.



B1431 16MM BOLEX H-16M has the same features as the H-16T except it has a single lens mount. This is an economical model for use with Zoom lens or underwater housing where the three lens turret is not required. With 25mm Lytar f/1.8 lens.

B1432 16mm Bolex H-16M with Pan Cinor 70 Zoom lens

B1433 16mm Bolex H-16M with Pan Cinor 85 Zoom lens

BOLEX ACCESSORIES

B1434 Rexofader

B1435 Electric Motor

B1436 Sure Fire Grip

B1437 Trigger Handle

B1438 Underwater Housing

B1439 Bolex H-1 Carrying Case

SEE SOUND SECTION PAGE 18 FOR 16MM AURICON SINGLE SYSTEM SOUND CAMERAS



MOTION PICTURE EQUIPMENT

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16MM SOUND-ON-FILM CAMERAS

16MM AURICON CAMERAS are self-blimped sound-on-film cameras. They can be equip-ped with either optical (RCA variable-area type or Western Electric variable-density type) or Auricon "Filmagnetic" sound heads for recording lip-sync 16mm sound motion pictures that can be projected on any op-tical or magnetic sound projector. All models have a sinusoidal, intermittent movement, utilizing a self-engaging single-claw film pull-down of hardened and tempered tool steel with precision lapped surfaces for quiet, long-life reliability. Several models are available in various price ranges. Camera equipped with SYNC motors may be used with double system sound if desired. All models have 173° fixed shutter (1/50 second at 24 f.p.s.). TV-T shutter can be provided for kinescope recording.

B1260 16MM AURICON CINE VOICE II is the simplest, least expensive Auricon sound camera. It is lightweight, rugged, easy to use. Comes equipped with either three lens turret ("C" mount) or a single lens mount model for zoom lens use. (See Lens List for suitable lenses.) Camera has 115 volt AC constant speed motor. Synchronous motor also available. 100 ft. internal daylight loading spools. (Note: Gordon Enterprises offers custom modifications for various external magazines and accessories to increase the film capacity and versatility of this popular camera. Write for details.) Large finder with parallax adjustment covers various lens fields from 13mm to 75mm. Available with variable-area or variable-density optical recording galvan-ometer, or with "Filmagnetic" recording head. Please specify. Camera can be supplied without sound equipment for silent use, or complete with desk stand, microphone headphones, 50 ft. microphone cable, cases, etc.

see pages 35 - 40 for the LARGEST, MOST COMPLETE LENS CHART EVER COMPILED

B1261 Fabricoid Camera Carrying Case

B1262 Fibre Camera Carrying Case

B1263 Fabricoid Carrying Case for Amplifier

B1264 Fibre Carrying Case for Amplifier

115 volt AC, 50 or 60 cycle, Synchron-B1265 ous Motor (please specify)

B1266 Zoom Lens Camera Door

B1290 16MM AURICON PRO-600 SPECIAL is a lightweight version of the popular PRO-600 camera for cameramen who need ultra portability for newsreel or location shooting. New 400 ft. magazine takes lab-pack film or daylight load-ing spools. Camera offers 30% reduction in weight. Camera with 400 ft. magazine and zoom lens weighs only 24 pounds. Camera is driven by true synchronous Auricon "sound-drive" motor designed to meet most exacting professional sound recording requirements. Available in single lens "C" mount for zoom lens or with three lens turret. (See Lens List for suitable lenses.) Camera is already prepared, at no extra charge, for "Filmagnetic" sound unit which may be installed at any time without use of tools. Does not interfere with optical sound-on-film recording. Can be used with all-transistorized. amplifier Model MA-11, which features a permanent lightweight rechargeable battery. Film take-up and other features same as PRO-600. Camera will accept all Auricon PRO-600 accessories.

B1291 Carrying Case for Camera Head

B1292 Carrying Trunk for complete outfit

B1293 Case for three 400 ft. Magazines

Case for complete "Filmagnetic" sound R1294 outfit

16MM AURICON PRO-600 is equipped B1279 for 600 ft. magazines, has built-in heater with thermostat control, electromatic film take-up and synchronous motor drive. Camera may be used for single or double system sound recording. Various camera door and viewfinder combina-Various camera door and viewfinder combina-tions available. Camera doors may be changed without tools. Variable-density, variable-area, or "Filmagnetic" recording heads are available. Please specify. Camera can be supplied with single lens "C" mount for zoom lens, or with three lens turret. (See Lens List for suitable lenses.) Turret is equipped with telefinder optical system which provides a ten-time magnified viewfinder image for telephoto lenses. Three matching finder objective lenses revolve with turret to match the lens in use. Critical ground glass focusing eyepiece provided on turret model. Lens and turret "blimping" hood prevents camera noise from reaching microphone even when filming extreme close-ups. Electromatic take-up operates without clutches or slipping belts. Small amount of tension is applied to take-up spool of film even when camera drive motor is turned off. Auricon PRO-600 is available and sound combinations. various camera Write for details.

B1280 Carrying Case for Camera Head

B1281 Carrying Trunk for Complete outfit

B1282 Carrying Case for three 600 ft. Magazines

B1283 Auto-Parallax Viewfinder (Model EIF-20)

B1284 Lens Mattes for Auto-Parallax Viewfinder (specify focal length)

B1285 Standard Finder (Model SF-10)

B1286 Zoom Lens Camera Door

B1287 600 ft. Magazine

Adapter plate for using 1200 ft. Auricon B1288 or Mitchell magazines (please specify)

16MM AURICON SUPER 1200 features a film movement with jewel hard sapphire sur-faces to guarantee frictionless, in-focus, scratchfree pictures with no danger of emulsion pickup. A stainless steel pressure plate, ground and lapped with recessed center area, is easily removed for cleaning. External push button retracts claw for easy threading and opens shutter for for easy threading and opens shutter for optical, ten-times magnified, full frame, ground glass focusing. Three lens "C" mount turret has matching telefinder lenses. (See Lens List for matching telefinder lenses. (See Lens List for suitable lenses.) Variable shutter permits fade-in and fade-out. May also be locked for exposures from 1/50 to 1/200 second. Variable-density, variable-area or "Filmagnetic" recording heads are available. Please specify. Self-blimped Super 1200 runs so quietly it requires no external blimp for studio operation. Large red indicator lights are provided at front and rear to signal that camera is running. Safety switch arm sigthat camera is running. Safety switch arm sig-nals a warning when film is not functioning normally. 1200 ft. magazines will record 33 minutes of continuous sound film. Lens and turret blimping hood prevents camera noise from reaching microphone even when filming extreme close-ups. Equipped with professional lock-in type, heavy duty electrical connectors for sound recording and power inputs. Footage and frame counter provides exact count of every frame and foot of film in entire roll.

B1323 Case for Camera

B1324 Carrying Trunk for Camera and 1200 ft. Magazine

B1325 1200 ft. Magazine

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J4004 "MODULITE" GALVANOMETER, MODEL "S" with Noise-Reduction Shutter and recording Optical System, for "Variable-Area" shutter-noisereduction (RCA type) hairline-centered optical sound-track. Installed and film-tested in any

MODEL T-70D VARIABLE DENSITY (W. E. TYPE) SOUND-ON-FILM RECORDING GALVANO-METER complete with optical system, installed and film tested in camera or recorder.

J6306 MODEL T-70A VARIABLE-AREA (R.C.A. TYPE) SOUND-ON-FILM RECORDING GALVANO-METER complete with optical system, installed and film tested.

14006 AURICON MODEL "S" VARIABLE-AREA 16MM SOUND-ON-FILM GALVANOMETER with Shutter-Noise-Reduction, installed and film tested

why wait? ...

If budget limitations prevent your buying equipment at this time . . .

rent it NOW!

AURICON AMPLIFIERS may be used with either cameras or recorders having matching galvanometers for double-system operation. Auricon amplifiers and recorders may be purchased separately. Please specify model and serial numbers of your existing Auricon equipment with which new unit is to be used, when requesting quotation.

J4001 AURICON AMPLIFIER, MODEL RA-31-AD7 for use with Model T-70-A "Variable-Area" Galfor use with Model T-70-A "Variable-Area" Gal-vanometer or Model T-70-D "Variable-Density" Galvanometer. Amplifier has inputs for microphone and phono, volume-indicator meter, soundtrack exposure meter; includes Auricon E-6 high fidelity microphone, 50 ft. microphone cable microphone desk stand, stethoscope-headphones, tubes, batteries, connecting cables and instruction book, complete in heavy duty Fibre Carrying

J4002 AMPLIFIER, MODEL NR-25-A-7 with "noise-reduction" circuit for use with Model "Variable-Area" Galvanometer above. Model NR-25 Amplifier is improved version of former NR-24 Model. "Noise-Reduction" bias on the sound-track reduces the background noise (which is like reducing needle-scratch on a phonograph record) when your film is being played on a sound-projector. Includes Auricon E-6 High-Fidelity Microphone, Microphone Desk-Stand, Cannon Input Plugs, all Tubes, Batteries, Stethoscope-Headphones, and connecting cables, a custom-built, professional Heavy-duty Fibre Carrying Case.

J4003 AMPLIFIER, MODEL NR-25-D7 with "noise-reduction" circuit, for use with Model T-70-D "Variable-Density" Galvanometer above. Includes all Cables and Accessories as supplied with Amplifier Model NR-25-A7 including heavyduty Fibre Carrying Case.

J4005 AMPLIFIER, MODEL NR-25-S7 with "Noise-Reduction" bias circuit for use with Model "S" Modulite Galvanometer above. With Cannon Input Plugs, high fidelity E-6 Microphone, all Tubes, Batteries, Stethoscope-Headphones, and connecting Cables in a customprofessional heavy-duty Fibre Carrying

J4012 AMPLIFIER, MODEL NR-40-A7 for use with T-70 Variable-Area Galvanometer (uni-lateral) and 7-volt, .2 ampere sound-track exposure lamp. Can be used interchangeably with NR-25-A7 (battery operated) Amplifier.

J4011 AMPLIFIER, MODEL NR-40-A4 for use with T-70 Variable-Area Galvanometer (uni-lateral) and 4-volt, .75 ampere sound-track expo-sure lamp. Can be used interchangeably with NR-25-A4 (battery operated) Amplifier.

J4016 AMPLIFIER, MODEL NR-40-D7 for use with T-70D Variable-Density Galvanometer and volt, .2 ampere sound-track exposure Can be used interchangeably with NR-25-D7 (battery operated) Amplifier.

J4014 AMPLIFIER, MODEL NR-40-S7 for use with Modulite Model "S" (Shutter Noise Reduction) Variable-Area Galvanometer and 7-volt, .2 ampere sound-track exposure lamp. Can be used interchangeably with NR-25-S7 (battery operated)

J4015 AMPLIFIER, MODEL NR-40-D4 for use with T-70D Variable-Density Galvanometer and 4 volt, .75 ampere sound-track exposure lamp. Can be used interchangeably with NR-25-D4 (battery operated) Amplifier.

J4013 AMPLIFIER, MODEL NR-40-S4 for use with Modulite Model "S" (Shutter Noise Reduction) Variable-Area Galvanometer and 4 volt, .75 ampere sound-track exposure lamp. Can be used interchangeably with NR-25-S4 (battery operated) Amplifier.

J4070 AURICON BATTERY ELIMINATOR, MODEL EB-20 eliminates all batteries in NR-24 and NR-25 Type Auricon Amplifiers for 115 volt AC, 50-60 cycle operation. Amplifier battery-leads plug into Terminal-box from the Battery-Eliminator, and may be disconnected without tools, when regular portable battery operation is de-

AURICON "B" BATTERY ELIMINATOR, MODEL EB-10 eliminates the four 45 volt "B' batteries used in NR-24 and NR-25 Amplifiers.

Operates from 115 volt AC, 50-60 cycle current.



J4010 AURICON NR-40 "CUSTOM" ALL-AC-OP-ERATED AMPLIFIER (uses no batteries) for 16mm Optical Sound-on-Film Recording. Complete with separate Model PP-40 Power Pack, Amplifier to Power Pack Cable, Amplifier to Recorder Cable, and molded rubber Power-cord to connect Power Pack to 115 volt AC power-outlet. Operates from 115 volt 50 or 60 cycle current, 125 watts. May also be used with Auricon System Optical Sound Cameras. Less microphone and carrying case. The Auricon "CUSTOM" all AC operated Amplifier (Model NR-40) is available in six sub-models for use with a variety of Auricon Galvanometers and Soundtrack exposure lamps. Please specify which sub-model is desired, when ordering.

J4050 AURICON HIGH-FIDELITY DYNAMIC MIC-ROPHONE, MODEL E-6, 50 ohms impedance, with special flat-black finish for motion picture work (less cable).

J4051 MICROPHONE WIND-SCREEN, for E-6 Microphone above. Eliminates wind-noise rumble when recording outdoors on a windy day.

J4052 AURICON MICROPHONE CABLE, 50 ft. with connectors (Please specify Amplifier Model Number when ordering) for Model E-6 Micro-

J4053 SUPER-CARDIOID STUDIO MICROPHONE MODEL 666, uni-directional sound pick-up. Furnished with 50 ft. of cable and connectors for use with all Auricon Amplifiers.

J4054 MIKE-BOOM MOUNT suspension-shockinsulated for mounting Model 666 "Super-Cardioid" Studio Microphone (above) on standard microphone boom.

J4061 AURICON MICROPHONE EXTENSION CABLE, 50 ft. with connectors (Specify amplifier model number when ordering). Extends standard Auricon Microphone Cable to 100 ft.

14055 MICROPHONE DESK STAND for use with Model E-6 Microphone listed above.

Anywhere In The World

Whether you are producing a documentary film in Asia, or equipping a motion picture studio in Europe. please remember that Gordon Enterprises is ready and able to serve your needs in every way. Chances are that the cameras, sound, processing or editing accessories are in stock here. Should you require special adaptations, Gordon technical consultants and optical and sound engineers are just a phone call or cable away from you wherever you are. They are at your service in solving your production problems. Please feel free to call for assistance in selecting the most practical equipment. The telephone number is 766-3725. The direct distance dialing code is 213.

J4056 CAMERAMAN'S MICROPHONE NECK-STRAP, MODEL MN-10 holds Model E-6 Microphone in speaking position, leaving hands free for camera operation.

J4057 MICROPHONE, MODEL AFV High Fidelity Slim "Wand" type, Professional, Black finish, ideal for TV interview and Newsreel Films, 50 ohms impedance for use with Auricon Sound-on-Film equipment. Complete with 50 foot cable and plush lined case.

J4058 MICROPHONE DESK STAND for Model AFV microphone

J4023 HEADPHONES, "High-Fidelity" hi-impedance stethoscope type with cord and plug

J4059 AURICON MICROPHONE BOOM, vertical section raises to 9 ft. and horizontal section extends 6 ft. The tripod base and other sections telescope and fold so that the Boom may be transported in the trunk or back seat of a pass-



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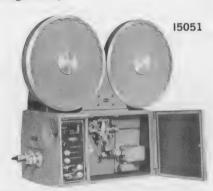
optical sound equipment

J4007 PORTABLE POWER SUPPLY UNIT, MODEL PS-15 is used to drive the Cine-Voice II Camera when house current is not available. Operates from 6 to 12 volt car battery and furnishes 115 volt, 60 cycle AC. Complete in carrying case. Measures 15" x 6" x 6" and weighs 11 pounds.

J4072 AURICON PORTABLE POWER-SUPPLY UNIT, MODEL PS-21 AL consisting of a 12-volt non-spill Aircraft Storage Battery and a Rotary-Converter generating 60 watts of 115 volt Alternating Current, plus a control panel with Frequency Regulator and Frequency-meter for exact output of 60 cycles. (50 cycle, 115 volt units available on special order.) Total net weight, 2 cases, 61 pounds. Specify 50 or 60 cycle when ordering.

J4073 BATTERY CHARGER, 12-volt tapering Selenium-Rectifier with Meter, automatic Circuit-Breaker protection, and connecting cables for charging Portable Power-Supply 12-volt battery.

J4074 BATTERY, extra 12-volt non-spill Aircraft Storage Battery.



ISOS1 16MM AURICON 1200 OPTICAL SOUND-ON-FILM RECORDER MODEL RM-30 is available for either variable-area or variable density (please specify galvanometer desired) optical sound-on-film recording. Can be supplied for existing Auricon amplifiers. Uses 1200 ft. film magazines for up to 33 minutes of continuous recording. Recorder uses same magazines as Super 1200 camera. Self-blimped with sponge rubber interior lining. Completely quiet in operation, can be run within six feet of recording microphone. Has safety interlocked film flow Recorder will not operate unless take-up belt is in correct position and film is moving normally. Triple-filtered film flow insures "flutter-free" and "wow-free" recording. Push button control panel with indicator lights that show at a glance that the recorder is running film satisfactorily. Recorder is powered with a reversible, synchronous motor permitting "A" or "B" wind emulsion position sound tracks to be made. Film is edge guided by jewel-hard sapphire surfaces for precision placement of sound track on film.

ISO75 16MM AURICON OPTICAL SOUND-ON-FILM RECORDER MODEL RT-80 is extremely portable. Weighs only 20 lbs. Two-way operation permits recording either A or B wind variable area sound tracks. Built-in 115 volt AC, 60 cycle, synchronous motor allows recording double system sound with any synchronous motor driven camera. (50 cycle synchronous motor available on special order.) Uses 200 ft. daylight loading spools. Utilizes a feed and take-up sprocket, with a separate triple-filtered sound recording sprocket. Extra AC outlet is provided on recorder for plugging in camera so that both will start and stop together. Recorder may be operated from the output of the amplifier supplied with an Auricon Camera. It may be purchased with the RA Standard Amplifier or the NR Noise-Reduction Amplifier.

J4020 AURICON MODEL RM-30 16MM RE-CORDER HEAD less Magazines and Galvanometer (for Double-System Synchronous Recording).

B1325 AURICON 1200 FOOT MAGAZINE, Model M-74-12



J4090 AURICON "FILMAGNETIC" HIGH FIDEL-ITY TRANSISTORIZED SOUND-ON-FILM RECORD-ING SYSTEM, consisting of twin-head transistor matched "Gold-Seal" camera recording unit with magnetic record and instant monitor heads, Model RPH-11, installed as original equipment in new Auricon Camera when ordered (with or without optical sound-on-film in the camera) Includes all transistorized "Filmagnetic" amplifier, Model MA-11 with 14 temperature compen-sated transistors; Model E-7 "High Fidelity" 250 ohm transistor matched microphone, 50 ft. microphone cable, microphone desk stand, head-phones, connecting cables, and instructions. Amp-lifier operates from built-in rechargeable battery for complete portability, or from AC power line current. Includes AC power pack and battery charger, Model BC-10 which operates the MA-11 Amplifier from 115 volt, 50 or 60 cycle AC, or re-charges battery overnight. "Filmagnetic" outfit is furnished complete in rugged professional dis patch-type carrying case, fitted and velvet lined, covered in durable Tuscany Maroon Vinyl. Case is designed to slip under pullman or airplane seat. Note: The new all transistorized "Filmagnetic" Model MA-11 system can be used in any Auricon camera already equipped to take the former Model MA-10 "Filmagnetic" system.



J5150 AURICON DUAL PHONO-TURNTABLE MODEL DPT-10 features featherweight nylon-crystal pickups with arms for 16 inch transcription discs and removable sapphire-tip needles. Provided with governor-controlled dual-speed motors that operate on 115 volt AC, 50 or 60 cycle power. Operates at 33½ or 78 r.p.m. Individual four position tone equalizer for each phono pickup provide "Bass, Med, Hi-Fi and Out." Phono output cable plugs directly into No. 2 Input of an Auricon sound-on-film recording amplifier. Equipped with individual "T"pad volume controls which provide completely independent monitoring of sound volume from the two turntables.

complete line of editing equipment

. . . pages 81 - 89

J4060 ADAPTER CABLE to connect Phono-Turntable Model DPT-10 with Phono-input on 16mm sound-on-film projectors.

AURICON CINE VOICE MODIFICATIONS

B2251 400 Ft. Mitchell Magazine Conversion, with torque motor or belt drive (please specify)

B2252 400 ft. Bell & Howell Magazine Conversion, with torque motor or belt drive (please specify)

B2253 Transistorized conversion, consists of: transistorized mixer-Amplifier MA-1, portable power supply, dynamic microphone cable, 6 volt nickel-cadmium battery, 9 volt mercury cell for amplifier, power cord set, leather case and strap for power supply.

Lighting as YOU want it!

FOR PROFESSIONAL LIGHTING OF ANY AREA, from small office to an entire sound stage or football field, you can depend on Gordon Enterprises personnel and material — to light the production completely, efficiently and quickly.

Qualified Lighting Engineers analyze your needs and make practical suggestions in equipment — for purchase or rental. See pages 59 through 77.

FOR BETTER LIGHTING EQUIPMENT call 766-3725, North Hollywood.

MAURER SOUND EQUIPMENT

I4030 16MM MAURER MODEL "F" SOUND RECORDING SYSTEM comprises the Model 10 film moving mechanism with a Model "F" Prime Galvo fitted with a photocell scanning system, which permits monitoring the galvo output during recording. Test films can be played back using the recorder as a film phono to adjust focus, azimuth and track location. Lamp current can be set accurately without making a film test when lamp is changed. The Model 82 Amplifier, Model 71 Power Supply and Voltage Regulator complete the system. The Model "F" is designed to produce professional quality sound-on-film with a minimum of recording experience. All controls are automatic during recording except "Level" which is adjusted with a single master gain control while watching the VU meter to obtain proper modulation. Both galvanometers produce either direct negative or direct positive tracks. Reversing switch permits recording with film flowing in either direction. Power supply unit is designed to operate from different voltages and different frequencies. Rugged specifications insure years of trouble-free operation.

I4035 16MM MAURER COMBINATION MAGNETIC-OPTICAL FILM PHONOGRAPH is similar to above but may be used for magnetic and optical reproduction or transfer.

14031 16MM MAURER FILM PHONOGRAPH provides high-quality sound reproduction. Its film transport is identical with the Maurer Recorder. Phonograph matches directly into the Maurer Recording Amplifier for re-recording and mixing. Frequency response is flat from 50 cycles to 7000 cycles. Flat response to 10,000 cycles available on special order. Magnetic head may be installed in the film chamber to make this a combination optical-magnetic dubber.

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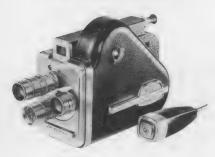




THE **FUTURE** OF INDUSTRIAL 8MM SOUND

The development of 8MM magnetic sound equipment and film has opened a new era in the audio visual motion picture field. Its flexibility and economy offers an answer to the current need of modernized audio-visual systems for use in community service, religion, science, medicine, government, industry, and education. 8MM sound offers economy of release prints; lower-cost projectors; smaller-sized projectors; less-bulky prints (an advantage when carrying, storing or shipping); lighter-weight release prints (an advantage in air transportation); more portable projection equipment — less weight; and self-threading or cartridge-load mechanism. With methods and materials available today, the producer will continue to use 16MM or 35MM camera film, which will then be reduced to the 8MM size in printing. Demands of quality and printing method dictate reduction from the larger film width. The 8MM camera will be (and is being) used for exposures of material which will be viewed as processed original film. 8MM sound film will tremendously increase the use of film in present areas, and pioneer its use in other areas where film has not been considered as a means of communication.

8MM SOUND CAMERA



B1951

B1951 8MM FAIRCHILD CINEPHONIC CAMERA is a single system sound camera that records the sound on magnetic sound-striped black and white or color film. Miniaturized sound system is completely inside camera. Long-life rechargeable nickel cadmium battery powers both film drive and sound recording. Fully charged battery allows 50 minutes running time (enough for 8 rolls of double-8mm film). Drives 50 ft. of film (1 complete side of spool) through camera in $2\sqrt[3]{4}$ minutes. Sensitive, omnidirectional microphone is connected to camera by 15 ft. cable (optional 10 ft. extension cable available). Microphone may be used on stand or worn around cameraman's neck. Double earpiece for monitoring sound. Picture and sound controls are grouped for one hand operation. Three lens turret is equipped with 13mm Cinphar f/1.8 fixed focus lens. 38mm f/1.8 telephoto and 8.5mm f/1.8 wide-angle lenses are optional. Viewfinder has parallax correction for close-ups or distance. Full frame for 13mm lens, scribed rectangle for telephoto and adapter for wide-angle lens. Accessory exposure meter screws into lens turret. Sound is recorded 52 frames (7.8 inches) ahead of picture. Camera is supplied complete with microphone headset, battery, charging cable, 13mm lens and 85B filter.

B1952 Camera Case

B1953 Exposure Meter

B1954 Microphone Stand

B1955 8.5mm f/1.8 Lens

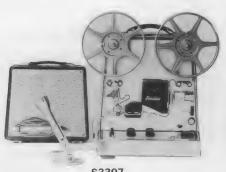
B1956 38mm f/1.8 Lens

B1957 10 ft. Microphone Extension Cable

50 Ft. Roll Double-8mm Black & White

B1958

B1959 50 ft. Roll Double-8mm Color Film



S3307

S3307 8MM FAIRCHILD CINEPHONIC RECORD-ING PROJECTOR allows sound recording and playback on sound striped 8 mm film. Features: single unit construction; no protruding arms; 400 ft. reels mount directly on built-in spindles; easy threading path, with lever for convenient sync adjustment; 3-position switch for playback, overlaying sound, erase-and-record; sound level indicator, volume control; 2 running speeds: 24 and 16 f.p.s. for sound and silent movies; separate microphone for adding narration or background effects to sound or silent movies; separate speaker may be placed behind or under screen. Complete with companion speaker and extension cable, separate microphone, 400 ft. reel and self-carrying case.

8MM TECHNICAL SERVICE INC. (T.S.I.) MOVIEMATIC JR. is a compact repeater projector for showing 8mm silent film in normal light on the self-contained screen. Will run a five-minute picture story continuously or can be switched on and off for individual showings. Film is loaded in a repeater magazine, no threading or rewinding required. Basic mechanism built by Kodak. Moviematic Jr. with case cover has a carrying weight of only 12 lbs.

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FAIRCHILD CINEPHONIC SOUND PROJECTOR is a continuous 200 ft. magazine model that is small, light, tough and precise in construction. Will operate automatically for hours unattended. Projector with built-in screen in self-contained case is no larger than a portable typewriter. Will rear project sound striped 8mm film on a $8\frac{1}{2}$ " x 11" translucent screen. Single knob controls on-and-off and sound volume. 100% transistorized (silicon) printed circuitry requires no warm-up. Frequency response is 80 to 7000 cycles ±3 db. High efficiency 8 volt, 50 watt, pre-focused lamp. Overall amplifier output is 3 watts. Equipped with f/1.5 projection lens and 4 x 6 oval speaker. Optional Clip-in mirror housing and supplementary lens available for large 30" x 40" screen projection. Threading of film for an alternate magazine, when required, can be done in a minute or less. Provision provided for auxiliary speaker (16 ohm) or headset. Initial lubrication good for more than 500 hours continuous showing. 200 ft. magazine will run approximately 11 minutes. Projector weighs only 15 pounds. Operates on 105-125 volts, 60 cycles AC. Consumes only 100

S3309 8MM FAIRCHILD CINEPHONIC 400
SOUND PROJECTOR is similar to above but handles 400 ft. continuous magazine which provides 22 minute show. Weighs 17 pounds.

\$3310 Clip-in Mirror (for straight projection)

\$3311 200 ft. Magazine

\$3312 400 ft. Magazine



MOTION PICTURE EQUIPMENT

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GORDON DYNAMAX POWER PACKS

GORDON ENTERPRISES DYNAMAX POWER supply a dependable, long-lived source of portable power for cameras, lights and accessory equipment. The Dynamax doubles the footage available with standard lead-acid batteries. Heart of the Dynamax Power Pack is a sinteredplate nickel cadmium storage battery with a capacity of 8 ampere hours. (16 ampere hour capacity is obtained from the 8-16 volt Dynamax Power Pack for the Arriflex 16mm cameras). The Dynamax is truly a lifetime battery, with no known limit of service. More than 5,000 recharges have been performed without loss of capacity Unit charges to 100% overnight and retains charge to within 70% after one year in storage. Storage life, charged or discharged is infinite. Cells are compact, lightweight, and virtually indestructible, having been designed to withstand extreme shock and vibration. Dynamax Power Packs are available in various voltages both with or with-out built-in chargers. Battery cells are contained in a stainless steel housing and cased in either leather or deluxe metal cases, with shoulder strap. Batteries are leak-proof and may be carried in camera or accessory cases. A constant potential miniaturized charger, using the battery manufacturer's of the battery pack. Average charging rate is approximately 350 ma. This rate insures a rapid, safe and dependable charge. Separate chargers are available for batteries without built-in charger.



D7050 254GE-A8: 8 volt DC, in leather case

D7051 254GE-A816: features an integral switch for both 8 and 16 volt DC, in leather case

D7052 254GE-H12: 12 volt DC, in leather case

D7053 254GE-A16: 16 volt DC, in leather case

D7054 254GE-H24: 24 volt DC, in leather case

D7060 254GE-H28: 28 volt DC, in leather case

D7075 281GE-A8: 8 volt Battery Charger with ammeter and voltmeter

D7076 281GE-H12: 12 volt Battery Charger with ammeter and voltmeter

D7077 281GE-A16: 8-16 volt Battery Charger with ammeter and voltmeter

D7078 281GE-H24: 24 volt Battery Charger with ammeter and voltmeter

D7061 281GE-H28: 28 volt Battery Charger with ammeter and voltmeter

D7064 367GE-2: 12 volt DC, in stainless steel

D7065 367GE-3: 24 volt DC, in stainless steel



D7056 280GE-816: features a built-in switch for both 8 and 16 volt DC with built-in charger, in deluxe metal case

D7057 280GE-12: 12 volt DC with built-in charger in deluxe metal case

D7058 335GE: 8 volt DC with built-in charger, in leather case

D7059 336GE: features a built-in switch for both 8 and 16 volt DC, with built-in charger, in leather case

D7055 280GE-8: 8 volt DC with built-in charger, in deluxe metal case

D7062 353GE: 12 volt DC with built-in charger, in leather case

D7063 358GE: 24 volt DC with built-in charger, in leather case

LENS SERVICE

More than 14,000 photographic lenses are in stock at Gordon Enterprises. Many are special purpose optics for specific applications. Others are stock mounted lenses that can be fitted to standard model cameras. Gordon Lens Service shops are thoroughly equipped to mount special purpose optics and long telephoto refractors or mirror-optical systems to any standard or customdesigned motion picture or photo instrumentation cameras. Many lenses in inventory may be custom adapted to fit your photographic situation. Check the time-saving lens charts, pages 35-40, to find which lenses are available in the mounting you desire - or which lenses may be custom mounted to fit your camera. Since this huge inventory - world's largest selection of lenses - cannot be listed in this space limit, write concerning your special optical problem. Consultants will supply information you request and recommend the optics required.



D9110 NCE ARRIFLEX 35 FLAT BED MOTOR has speeds adjustable from 8 to 48 frames per second. Two models are available: 115 volt AC-DC or 12 volt DC (please specify). Fits both $\frac{1}{4}$ –20 and $\frac{3}{6}$ –16 tripod threads. No special adaption required. Simply remove regular Arriflex motor screws and use them to secure camera to motor base. No hi-hat required. Camera is perfectly balanced on standard flat tripod head. Uses camera tachometer to adjust frame speed. Motor speed does not change from beginning to end of film load.

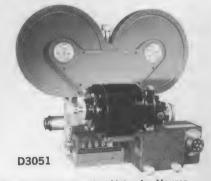
for TRIPODS see pages 24 through 28

D9215 NCE VARIABLE SPEED MOTOR for Cine-Special I & II Cameras has built-in tachometer and speed range of 8 to 64 frames per second Motor to camera connecting shaft has a break safety spring to prevent damage to camera in event of film buckle. Motor available in various voltages: 115 volt AC-DC Universal, 12 volt DC and 24 volt DC (please specify).

D9216 NCE VARIABLE SPEED MOTOR for Maurer camera (please specify voltage)

NOTE: NCE VARIABLE SPEED MOTORS are available for most 16mm & 35mm cameras with addition of special adapter. Specify Camera and motor voltage desired.

D3050 NCE ANIMATION MOTOR for Cine Special I and II Cameras actuates single frame motion by a hardened machine cam and lock, released by a solenoid, controlled remotely. Motor to camera connecting shaft has a break safety spring to prevent damage to camera in event of film buckle. Adjustable positioning Veeder is part of motor housing. Motor is 115 volt AC, single phase, 60 cycle synchronous and is available in either 60 or 100 frames per minute units (please specify). Remote control switch box has forward and reverse, on and off switch and solenoid fingertip actuator switch for foot or additional remote control switch. NOTE: motor available for 50 cycle on special order. NCE Variable Speed Motor Adapters will also fit Animation Motor.



D3051 NCE Animation Motor for Maurer

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camera accessories

D3052 NCE Animation Motor for B&H Filmo

D3053 NCE Animation Motor for B&H Eyemo

D3054 NCE Animation Motor for B&H 2709

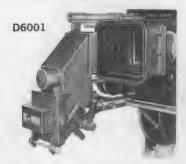
D3055 NCE Animation Motor for 16mm Mitchell

D3056 NCE Animation Motor for 35 Mitchell



D9200 NCE SYNCHRONOUS MOTOR for 16mm Bolex is 115 volt AC, 60 cycle, single phase and operates at 24 frames per second sound speed for accurate double-system sound recording. Motor is complete with base, coupling, clutch and cable. Camera height adjusting screw is provided in aluminum base casting. Motor mounting base is adjustable for horizontal centering of coupling.

D9220 NCE SYNCHRONOUS MOTOR for 16mm Cine-Special is similar to above



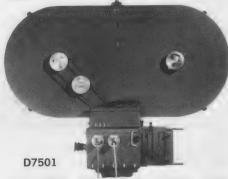
D6001 NCE SYNCHRO FILM SLATE provides slate data, sound buzzer and built-in optical system and illumination for on-the-camera sound slating of scenes. Fits all Mitchell camera matte box brackets and various types of blimps and geared heads. Swings out of position for filming.

D9100 NCE CAMERA SLATE with slap sticks can be used for double-system sync sound shooting. Constructed of cast aluminum, compact folding type, with handle provided on back of slate. Numbers are made of black fibre composition with white numerals. Center mounting ring allows quick change of scene and take numbers. Slap sticks may be removed. Finished in gray hammertone. Slate is $10 \frac{1}{4}$ " X $11 \frac{1}{2}$ ", less slap sticks, and only $5 \frac{1}{8}$ " X $11 \frac{1}{2}$ " folded.

D9101 NCE TRIGGER-GRIP CAMERA HANDLE is specially designed to fit all 8&H Filmo design 70 cameras and 240 TA camera. Grip allows steadier hand-holding. Spring loaded trigger shutter release depresses a stainless steel hook extension over the top of the Filmo camera to release regular camera button. Sturdily built of cast aluminum in brown wrinkle finish.



D9210 8/16MM NCE SUNSHADE MATTE BOX is made to fit all semi-professional and professional 8mm and 16mm cameras. Will take all lenses from 15mm to 152mm. For use with 2 inch square and 3 inch square glass or gelatin filters and various accessories such as gauze holders, diffusion filters, effect filters, etc. Will fit most cameras by simply adjusting the brackets for height and side alignment. Made of aluminum casting with dural front rods. Rubber back caps are supplied to avoid back flare when lens used is smaller than the back opening. Fibre filter holders are supplied in both 2 inch square and 3 inch square sizes for holding the gelatin filters or gauzes. Base fits all cameras and has ½-20 and ½-16 tripod threads. Interior of matte box is finished in flat optical black.



D7501 16MM 3000 FT. BRYHN FILM MAGAZINE is custom made for use with Auricon Pro 600 and Super 1200 cameras. It may also be constructed for other 16mm cameras, whose take-up differs from the Auricon, by utilizing a torque motor. Magazine has individual compartments, built-in "tight-wind" on take-up side, clasp-type cover latches, interior baked flat black and exterior finished in gray-wrinkle. Magazine may be used for special recording, medical, instrumentation, oscilloscope and TV kinescope recording, or any extremely long continuous operation which does not require extreme panning or tilting. Slight interior modification will allow use of up to 3400 feet of film (approximately 95 minutes at sound speed). Write for complete information stating camera make, model and use. Unit is 37" x 18½" and weighs 27 pounds.

D7502 Case

D6533 16MM 1200 FT. BRYHN AURICON PRO-600 MAGAZINE ADAPTER is designed to fit on present PRO-600 camera to allow use of Auricon 1200 ft. magazines. Adapter only. Order magazine separately. NOTE: Can not be used with PRO-600 SPECIAL. D9215 16MM 2400 Ft. NCE TV-R MAGAZINE may be used with Auricon, Bell & Howell, Maurer, Mitchell, and GPL cameras with respective adapters. Utilizes a 110 volt AC torque motor take-up. Motor may be mounted on either side for forward or reverse operation. Write for complete information stating make of camera, model and use.

D9217 NCE MITCHELL REFLEX MODIFICATION provides Mitchell NC, High Speed or Standard for direct thru-the-lens reflex viewing. New "L" base is supplied with modification. Write for further information.

X3456 GALCO FILMETER STOPWATCH NO. 852 shows both 16mm and 35mm footage plus time in 1/5 seconds. Black figures indicate film footage consumed for 35mm; blue figures indicate film footage consumed for 16mm and red figures indicate time consumed. Registers to 12 minutes. Timer has 7 jewelled-lever movement. Anti-magnetic. Unbreakable crystal. Hinged nickel case. Nivarox hair-Spring and glacidur metalbalance minimizes expansion and contraction.

X3457 GALCO FILMETER STOPWATCH NO. 810F is similar to above in construction. Indicates 35mm footage and time in 1/5 seconds.

X6347 WAKMANN FILM FOOTAGE TIMER reads directly in feet per minute for 16mm and 35mm film. Has 1/5 second and full second divisions also. Sweep second hand revolves once in 60 seconds. Minute register hand reads to 30 minutes. Side slide starts and stops hands. Pressure on crown brings hands back to zero. Monorex shock protection and unbreakable mainspring.

X6374 MINERVA CLIP BOARD WITH WATCH HOLDER is a light, durable, body-contoured aluminum clip board fitted with a stopwatch holder. 12" x 13". Watch may be mounted on right or left and wound while in place.

X3489 RAY-RITE CLIPBOARD is a masonite or metal clipboard with a built-in flashlight. Clip and flashlight are made of durable metal. Bulb is recessed within clip for protection and directs a strong light beam over entire writing section. Ideal for making notes during projection. Available in three sizes: 7" x 12", 9" x 14" and 9" x 17" (please specify size and metal or masonite when ordering).



B1255 Film Shrinkage Gauge.

D9050 FILM CHANGING BAG with double zipper designed for heavy usage. 34" x 48" size will accommodate 1000 ft. magazine. Black sateen outer bag, inner bag of heavy rubberized fabric. Roomy sleeves have elastic light-tight wristlets.

X9001 FILMAGIC CLOTH is a silicon impregnated soft cloth that can be used to clean, polish and protect any delicate surface. Excellent for cleaning camera and projector gates, recording tapes, film, plastics, records, leathers, chrome and metal surfaces.

D9080 KRYLON DULLING SPRAY is used to subdue glaring highlights. Improves rendering of fine detail. Shiny metallic or other surfaces may be given a smooth matte finish which is easily wiped off after filming. Krylon is available in "clear" and 19 different colors (please specify color desired).

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TRIPOD DEFINITIONS

Please read the following tripod descriptions carefully. While some tripods are sold only as complete units, consisting of legs and pan and tilt head, others are sold separately so that the cameraman may choose whatever set of legs and head he desires. The availability of friction, fluid, gear, gyro and balanced (spring loaded) pan and tilt heads in various sizes permits fitting the tripod head to the filming job. Tripod legs are available in wood or metal and in various lengths. Standard length legs will suffice for most set-ups. "Shorty" or "baby" legs should be employed for low camera angles. Hi-hat (low mount) adapters allow a tripod head to be mounted to title boards, airplanes, helicopters, boats and other places where a tripod can not be positioned because of space or other limitations. Be certain to choose a tripod combination heavy enough to handle the camera and accessories in use. This is particularly important with heavy blimped sound cameras. A recent innovation is the ball socket adapter, placed "between" the pan and tilt head and the tripod top casting, which permits levelling the tripod head without adjusting the legs. Some tripods possess this as an integral part, others can make use of a separate ball adapter (with the properly mated top surface) allowing almost any head to be leveled in this manner. Be certain when ordering a ball adapted pan and tilt head to purchase tripod legs with matching ball socket top casting.

GORDON ENTERPRISES JUNIOR TRIPOD LEGS are grooved type, made of best quality hardwood, treated to withstand all weather conditions. Legs are oil treated, polished and waxed for smooth, non-sticking telescoping action.



D2001 Standard Legs with flat top casting.

D2002 Standard Legs with ball socket top casting.

D2003 Shorty Legs with flat top casting.



D2004 Shorty Legs with ball socket top casting.

GORDON ENTERPRISES JUNIOR FRICTION HEAD is engineered for smooth pan and tilt movements. Two position, telescoping, offset pan handle, adjustable to length and either left or right position. Positive pan and tilt locks with large tightening levers. Full 90° tilt. One-piece knurled leg locking knobs for quick, easy leg adjustments provides even tension without warping. Built-in spirit levels.

D2007 Friction Head for flat top casting tripod legs.

D2008 Friction Head with ball head adapter for legs with ball socket top casting.

D2009 GORDON ENTERPRISES JUNIOR TRI-POD LEGS AND HEAD consisting of Standard Legs with flat top casting and Junior Friction Head (D2001 plus D2007).

D2010 GORDON ENTERPRISES JUNIOR TRI-POD LEGS AND HEAD consisting of Standard Legs with ball socket top casting, ball head adapter and Junior Friction Head (D2002 plus D2008).



D2011 GORDON ENTERPRISES HEAVY DUTY TRIPOD LEGS are Mitchell type and similar in construction details to D2001 listed above, but suitable for heavy weight 35mm cameras. Takes Standard Mitchell Head.

D2012 Baby Tripod Legs (Mitchell-type).

D2013 Hi-Hat (Mitchell-type).



D2005 Hi-Hat with flat top casting.

D2006 Hi-Hat with ball socket top casting.



D1506 NATIONAL CINE EQUIPMENT CO. HYDROFLUID PAN AND TILTHEAD TRIPOD designed for TV Vidicon, 16 Mitchell, Maurer, Camerette, Arriflex 16/35, Cine-Special, Eyemo, Filmo, Auricon (Cine Voice 600-1200), Cineflex, etc. Features larger silicone dampening area than any other tripod in its class. Temperature range from minus 30° to plus 500°F. Velvety smooth, jerk-proof pan and tilt action, utilizing the dampening effect of silicone. Aluminum construction. Precision ball bearings mounted on pan and tilt shafts for smooth action and alignment. Pan 360°; tilt 80°. First tripod of its kind with ball type leveling at bottom of base and positive lock at no extra charge. Tripod legs of seasoned maplewood with self-aligning leg locks. For all cameras 40 lbs. or less. Head and legs available only as complete unit.

D1507 Baby Tripod Legs

D1508 Hi-Hat

D1509 Case

D1510 Boot and point cover

D5010 NATIONAL CINE EQUIPMENT CO., INC. HEAVY-DUTY HYDROFLUID PAN AND TILTHEAD TRIPOD is large model of standard Hydrofluid tripod (D1506). Equipped with mechanical braking and fluid dampening. Will handle cameras up to 100 pounds, such as Mitchell BNC and similar studio cameras.

D5011 Baby Tripod Legs

D5012 Hi-Hat

D5013 Case

D5014 Boot and point cover

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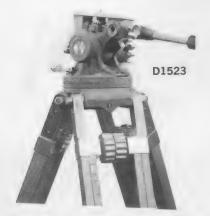
D1519 CECO PROFESSIONAL JUNIOR FRICTION HEAD assures smoothness in every action shot, 360° pan and 80° tilt action. Removable, mounts easily on "Hi-Hat low-base adapter. Large pin and trunnion assures long, dependable service. "T" level attached. Three-positions for attaching pan handle.



D1520 CECO PROFESSIONAL JUNIOR GEARED DRIVE TRIPOD HEAD weighs only 6 lbs. It can be used on Professional Junior standard tripod legs. Metal crank handles control pan and tilt action.

D1521 CECO PROFESSIONAL JR. FLUID HEAD guarantees the smoothest pan and tilt shots ever with a host of new features: adjustable tension on pan; adjustable tension on tilt; positive pan and tilt lock; maximum 90° tilt; two-piece pan handle with infinite adjustment. Uses a highly molecular silicone polymer which is unaffected by temperature ranges from 40° below zero to more than 120°F.

D1522 CECO PROFESSIONAL JR. SPRING HEAD is specifically spring-balanced for cameras weighing up to 25 lbs. Constructed of high-tensile strength aluminum alloy. Spring mechanism is enclosed, rust-proof and needs no lubrication. The camera will return to neutral position when lever is in unlocked position.



D1523 CECO PROFESSIONAL JUNIOR TRIPOD (FRICTION HEAD AND LEGS) accommodates most 16mm cameras with or without motor. Minimum height with legs spread, 52"; maximum height, 71". Weight 14 lbs. Hardwood construction with cast aluminum fittings.

D1524 CECO PROFESSIONAL JUNIOR TRIPOD (LEGS ONLY).

D1527 CECO PROFESSIONAL JR. ADJUSTABLE WOODEN BABY TRIPOD LEGS accepts both Professional Jr. Friction and Geared Heads. Has substantial shoe and spur. Measures 26" extended from floor to flange, 18" collapsed. Weight 7 lbs.

D1528 Bowl adapter for mounting all Pro Jr. heads except Gyro on Arri tripod legs.

D1525 CECO MINI-PRO JR. TRIPOD is a light weight replica of the Professional Jr. Tripod listed above. It features a built-in spirit level, tilt-tension adjustment knob and finger-tip pan locking knob. Height fully extended, 60". Low set-up at normal leg-spread, only 24". Weight 4½ lbs.

D1513 CECO PROFESSIONAL JUNIOR HI-HAT is an adapter for extremely low-mount set ups, also used for title stands and permanent mounting. Handles either friction or geared drive tripod heads.

D1514 Similar for Pro Jr. Gyro.

D1515 Similar for Mitchell.

D1516 Similar for Arriflex.

D1518 CECO SWIVEL BALL JOINT ATTACH-MENT FOR PRO JUNIOR TRIPODS permits the camera to be easily and quickly leveled to the right horizontal position although the ground or tripod legs are not straight. Swivel Ball can be placed between head and tripod body in a few seconds. Precision engineered, made of lightweight aluminum, weighs only 4 lbs.

D1526 CECO SMALL GYRO TRIPOD features "controlled action" pan and tilt. Has two speeds, slow and fast, for both panning and tilting. Especially recommended for 16mm Mitchell, 16mm Maurer, B&H Eyemo and similar cameras. Minimum height with legs spread 51"; maximum height, 70". Weight 19 lbs.

D1511 CECO NEW "BALANCED" TV HEAD, MODEL C offers smooth tilt with 360° pan action, perfect balance. Has tension adjustment. Built-in spirit level and telescoping extension pan handle. Spring for any weight camera can be provided for balancing camera, and offering ease of operation. Adjustable for center of gravity to counter-balance film load or long lenses.

D1512 CECO PROFESSIONAL TYPE TRIPOD LEGS for above.



D1529 CECO ALL METAL TRIPOD has top flange and upper leg portion made of one-piece aluminum alloy casting. Minimum height with legs spread, $29\frac{1}{2}$ "; maximum height with legs spread, $44\frac{3}{4}$ "; weight $26\frac{1}{2}$ lbs.

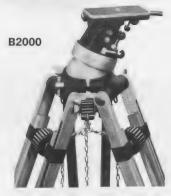


A1159 ARRI 35 TRIPOD is especially designed for the Arriflex 35 camera. Its pan head incorporates a cradle which accepts the motor handgrip. An oversized hemispherical joint permits the camera to be leveled without adjusting legs. All pan and tilt movements are precision machined. Pan and tilt controls have individual positive locks. Tripod legs are of seasoned hardwood. Tripod is equipped with spirit level, tie down eyelets, calibrated leg height scales, tie down lips and dual spikes.

A1160 ARRI 35 SHORTY TRIPOD LEGS (without head)

A1161 Leather Carrying Boot and Cap for standard 35 tripod.

A1162 ARRI HI-HAT to use Arriflex 35 camera on standard tripod.



B2000 ARRI 16 TRIPOD is especially designed for the Arriflex 16 camera. Tripod legs are of seasoned hardwood with calibrated height scales. Pan and tilt head movements are precision machined and have individual locks. Ball adapter permits leveling head without adjusting legs. Chain allows controlling leg spread. Tripod is equipped with spirit level, tie-down lips and dual spikes.



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tripods/heads

B2001 ARRI 16 SHORTY TRIPOD LEGS (without head).

B2002 Leather Boot and Cap for Standard 16 tripod

B2203 Fibre Carrying Case for Standard 16 tripod

B2204 Fibre Carrying Case for Shorty 16 tripod

D1543 AURICON MODEL FT-10 PAN TILT HEAD PROFESSIONAL TRIPOD has precision machined aluminum alloy parts. Ball-bearing independent pan and tilt friction clutches. Professional size 3/8-16 hold-down screw (special 1/4-20 screw available). Twin-bubble level and tie-down rings. Length, with legs extended, 65"; with legs closed, 42", 22" pan-tilt handle is interlocking. Head accommodates Auricon Hi-Hat. Head and Legs available only as a complete unit.

MILLER "FLUID ACTION" TRIPOD HEADS are precision built of highest quality materials. Head consists of two sealed units packed with special fluid. Unless otherwise specified; movements are packed with medium grade fluid which permits head to operate efficiently from 10°F to 140°F Heads feature full 360° horizontal movement, either right or left hand operation, complete control in both panning and tilting directions, no backlash, shake or jitter. Pan and tilt knobs for adjusting tension and locking.

D1691 MILLER FLUID HEAD MODEL "D" is for use with Bell & Howell Filmo, Bolex, Cine-Special, Arriflex 16, Auricon Cine-Voice and cameras of similar weight. Standard 1/4-20 camera mounting screw (3/6-16 available on special order).



D1692 MILLER FLUID HEAD MODEL "PRO" is for use with heavier cameras such as Arriflex 35, Bell & Howell Eyemo, Auricon Pro 600 and Super 1200 and other cameras, equipped with magazine and motor drive, of similar weight. Standard 3/8-16 camera mounting screw (1/4-20 available on special order).

MILLER BALL LEVELING TOP is interchangeable with any set of tripod legs (legs only — no top) in the junior class.

D1695 MILLER BALL LEVELING TOP only for

D1696 MILLER BALL LEVELING TOP only for "PRO" Head

D1697 MILLER ADAPTER PLATE will fit "D" Head to any tripod in junior class (Not required for Miller Tripod Legs).

D1698 MILLER ADAPTER PLATE FOR KODAK CINE SPECIAL I OR II D1699 MILLER ARRIFLEX 35 ADAPTER PLATE

MILLER GROOVED TRIPOD LEGS are made of selected kiln dried white mountain ash, dressed with silicone oils and lacquered for smooth telescoping action and long life. Double replaceable heavy duty tips and hold-down spur on each leg. Positive automatic equalization with "ezigrip" lock wheel on leg sections insures rigidity and prevents leg warp.

D1801 MILLER STANDARD TRIPOD LEGS, $61\frac{1}{2}$ inches high, $37\frac{1}{2}$ inches low, with ball leveling socket

D1802 MILLER BABY TRIPOD LEGS, 40 inches high, 20 inches low, with ball leveling socket

- Aerial Cameras -

INVENTORY . . . most complete stock anywhere of aerial cameras, accessories and parts.

MANUFACTURER of parts and special components for all aerial cameras and associated equipment.

SERVICE . . . world's largest organization for repair, modification and maintenance of aerial cameras and plotting equipment.

O'CONNOR FLUID TRIPOD HEADS provide perfectly controlled pan and tilt action for the most difficult photographic shots. They feature fully adjustable drag, independently set for both pan and tilt; independent mechanical locks in both pan and tilt; operation from below zero to 120°F; head counterbalanced in the tilt to compensate for weight of camera; preloaded ball and roller bearings for all moving parts; BUTA-N "O" ring seals provide complete protection against water, dust, sand, etc. Adjustable handles, interchangeable left and right. Available with adapter plate for most popular tripod legs.



D1530 O'CONNOR MODEL C FLUID HEAD is designed for use with cameras weighing up to 20 lbs. Tilts from minus 90° to plus 75°, ½-20 camera mounting screw. Designed for use with Arriflex, Cine Special, Bell & Howell Magazine and Design 70 series, Bolex, Kodak, etc. Dimensions 6½" high x 5" wide. Weight 5 lbs.

D1531 Carrying case for above.



D1532 O'CONNOR MODEL 100B FLUID TRIPOD HEAD is designed for use with 16mm and 35mm cameras with a total weight not exceeding 100 lbs. It is a heavy duty professional model. Tilts from minus 75° to plus 75°; 3/6:16 camera screw. Available with Mitchell Standard, Mitchell 16, Pro Jr., Auricon and O'Connor "Level-head" bases; adaptable to handle-bar type operation. Dimensions 7" high x 7" deep x 11" wide. Weight 20 lbs.



D1533 O'CONNOR MODEL 200-A FLUID TRIPOD HEAD was developed for television and motion picture cameras weighing up to 200 lbs. Mounted on Timken bearings; all moving parts run on ball or roller bearings; fingertip instantaneous locking; precision bull's-eye level; tilts from minus 75° to plus 75°. Features adjustable center of gravity. Furnished with Mitchell Standard or O'Connor "Level-head" bases; extra handle for handle-bar operation. Dimensions 8" high x 12" wide. Weight 32 lbs.



D7533 O'CONNOR MODEL 200-X FLUID TRIPOD HEAD has single side platform mount (double platforms on special order) completely adjustable so that any camera can be located on center of gravity in all positions of tilt. No springs are required for counter-balancing. Special instrument platform for viewfinder and other tracking instruments. Features similar to Model 200-A listed above-

D1536 O'CONNOR LEVEL-HEAD MODEL 201 is designed to be placed between tripod legs or Hi-Hat and O'Connor Fluid Tripod Heads. It is capable of leveling the head up to 15° in any direction. The unit can be instantaneously locked by a quarter-turn of the knob, mounted on the side.

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QUICK-SET HERCULES & GIBRALTAR INDUSTRIAL TRIPODS

QUICK-SET HERCULES & GIBRALTAR INDUSTRIAL TRIPODS are made of high-strength, light weight aluminum alloys, heavily protected against corrosion, finished in black baked enamel with bright satin trim. Tripod legs have shake-free joints with easily working locks, adjusting quickly for length. All metal construction operates perfectly over wide range of temperature and humidity; no swelling, no warping or jamming. Non-slip, no-mar foot plates are safe on any surface and offers ample support on soft ground. Super-smooth controls positions the camera perfectly, instantly and easily. Tubular center column with side braces from tripod legs offer rock-steady rigidity. Certain models feature an Elevator column which adjusts height quickly, precisely and locks securely.



D2073 QUICK-SET HERCULES TRIPOD (3/4 Length with Elevator) has maximum height of 65" and Elevator travel of 20". Similar in construction to full length model.

D2074 QUICK-SET HERCULES TRIPOD (3/4 Length) Similar to above but without Elevator.

D2071 QUICK-SET HERCULES TRIPOD (Standard Length with Elevator) Maximum height 80", minimum height 40" with legs full extended. Elevator travel 20". Working load 75 lbs.

D2072 QUICK-SET HERCULES TRIPOD (Standard Length) is similar to above but without Elevator.

D2091 Spike Tip may be substituted for standard foot plate. Screw-on type attachment.

D2085 Lo-Hi unit enables camera height from 9 inches to 7 feet. "Z" shaped column attaches to center column of tripod. Either friction or geared head may be attached.

D2075 QUICK-SET HERCULES FRICTION PAN HEAD has maximum usable range of motion. Pan of 360°, Tilt of 45° up, and 90° down. Brakes are adjustable for drag. Torsion springs compensate for camera weight. Adjustable camera plate guided by dove-tail ways moves camera forward or backward for counter balance.

D2078 QUICK-SET HERCULES DUALOK TV PAN HEAD is designed to meet the requirements of the television industry. Similar in construction to the Hercules Friction Head except that both pan and tilt movements have adjustable drag controls and fast lock levers which lock tilt with a fraction of a turn. The fast lock levers are adjustable so the operator can set the lock position to suit. The drag controls are adjustable over a wide range and operate independently of the fast lock.



D2076 QUICK-SET HERCULES GEARED PAN HEAD is similar to the Hercules Friction Head except that panning and tilting are controlled by worm gear drives with shafts placed at right angles so that the operator can comfortably turn both together or either singly. Spinning the hand wheel gives fast movement to the head, or a slight movement of the hand wheel will "inch" the head in any direction. Shafts have large bearings and the tilt worm gear drive has a ball-type thrust bearing. Torsion spring and the tilt movement compensates for camera weight. Brakes on both pan and tilt lock when required. Tilt gear ratio: 1 to 129. Pan Gear Ratio 1 to 96.

D2086 Hi-Hat provides a means for mounting any model of HERCULES PAN HEAD in a semi-permanent location. Height: 43/4".

D2087 Adapter for mounting PELCO PT-125 Remote Control Pan and Tilt Head.

D2088 Adapter for mounting PELCO PT-500 Remote Control Pan and Tilt Head.

D2089 Adapter for mounting PELCO PT-1000 Remote Control Pan and Tilt Head.

D2092 Cine Kodak Special Adapter.

D2095 QUICK-SET GIBRALTAR TRIPOD (Full length with elevator.) Maximum height 100", minimum height 52" with legs fully extended. Elevator travel 20". Working load 200 lbs.

D2096 QUICK-SET GIBRALTAR TRIPOD (Full length) is similar to above but without Elevator.

D2097 QUICK-SET GIBRALTAR TRIPOD (3/4) length with Elevator) is similar to full length model. Maximum height 72". Minimum height 383/".

D2098 QUICK-SET GIBRALTAR TRIPOD (3/4 length) is similar to above but without Elevator.

D2099 QUICK-SET GIBRALTAR GEARED PAN HEAD has worm gear drives to control pan and tilt movements. Both drives are placed at right angles to allow convenient simultaneous operation. Worm gears are provided with ball type thrust-bearings. 8" x 10" base plate tilts 60° up or down. Tilt gear ratio 1:28. 360° pan with gear ratio 1:96. Multiple contact brake provides adjustable drag or full lock. Torsion springs compensate for camera weight. \(\frac{3}{2}\) ".16 mounting screw. Height 8\(\frac{1}{2}\)". Weight 18 lbs.

D2030 QUICK-SET GIBRALTAR FRICTION PAN HEAD is similar in construction to Gibraltar Geared Head, except control handle has been added in place of gear drives. Multiple contact brake provides adjustable drag or full lock. Tilt 60° up or down. 360° pan. 3/8"-16 mounting screw. Height 81/2". Weight 16 lbs.

D2031 Adapter Bushing allows HERCULES HEAD and ACCESSORIES to be used with GI-BRALTAR tripods with quick-lock connector bore.

D2034 ADAPTER for mounting PELCO PT 125S Remote Controlled Pan and Tilt Head.

D2035 ADAPTER for mounting PELCO PT 500 Remote Controlled Pan and Tilt Head.

D2036 ADAPTER for mounting PELCO PT 1000 Remote Controlled Pan and Tilt Head.

D2037 Spike tips (set of three)

see pages 35 - 40 for the LARGEST, MOST COMPLETE LENS CHART EVER COMPILED

OVER 7,000 COMBINATIONS



D4991 THOMAS 16 FLUID TRIPOD HEAD features an exclusive Viscodyne fluid system that assures smooth vibrationless pan and tilt. Controlled fluid drag pre-set at 10 inch-lb. on tilt and 7½ inch-lb. on pan. Variable drag can be adjusted and locked without disturbing tension control. Features automatic breakaway action beyond 18 rpm. Will operate from minus 60°F to more than 212°F. Adjustable telescoping pan arm. All aluminum construction. Weight: $3\frac{1}{2}$ lbs.

D4992 Adapter plate for use with Professional Jr. type tripods.



D1540 AKELEY UNIVERSAL GYRO TRIPOD features ball-bearing gyro mechanism with quick releases for movement in any direction. Three different pan speeds; pan and tilt lock securely, independently. Levels quickly by release of knurled knob at bottom of tripod head bowl. Weight 30 lbs.

D1541 Hi-Hat Low Mount.

D1542 Baby Tripod Legs



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MITCHELL FRICTION TILTHEAD is extensively used because of its ease of operation, rigidity and ruggedness. Large friction surfaces packed in a special grease contribute to its smooth operation. Enclosed springs help counterbalance the weight of the camera.

D1547 MITCHELL STANDARD TRIPOD HEAD is used for the Sound (NC) Standard and High Speed Cameras.

D1548 MITCHELL LARGE TRIPOD HEAD is used for the Studio Camera (BNC), or for other cameras when a lightweight blimp is employed.

D1549 MITCHELL HEAVY DUTY TRIPOD HEAD is for use with a heavyweight blimp.

MITCHELL STANDARD TRIPOD LEGS are made of thoroughly seasoned maple, impregnated with a special penetrating oil to prevent shrinking or swelling when exposed to the weather. Base shoes have points of hardened steel screwed in and locked with a nut. Inside each shoe, set at a 45° angle, is a second point, which will engage if the tripod leg should slip.

D1550 MITCHELL TRIPOD LEGS (HIGH) 3 feet 10 inches to 6 feet 4 inches.

D1551 MITCHELL TRIPOD LEGS (STANDARD) 2 feet 10 inches to 4 feet 6 inches.

D1552 MITCHELL TRIPOD LEGS (BABY) 1 foot 10 inches to 3 feet.

D1553 MITCHELL ROLLING TRIPOD designed for use with camera blimps is a mobile under-carriage for camera equipment. It may be used with any of the friction tiltheads. Height is adjustable from 2'7" to 5'6". A safety device is provided so the telescopic rods cannot be released until the weight is carried by the legs.

D1554 MITCHELL HI-HAT OR LOW MOUNT tilthead adapter is used when an extremely low mount is desired. Ideal for mounting the camera on airplanes, boats and other places where a tripod cannot be used. Hi-Hat is only $4\frac{1}{2}$ inches high.

D5021 MITCHELL GIMBAL TRIPOD is designed for filming from boats or other unstable platforms. Ball bearing gimbal and weighted pendulum keeps camera constantly level. Extraheavy-duty construction. Accepts Mitchell Friction Head, O'Connor Models 100 and 200A, and Ceco TV Head.



D1201 SALTZMAN MODEL 500MR PORTABLE CAMERA STAND is of very sturdy construction, extends from 26 inches to 8½ feet. Raising and lowering of camera is accomplished by means of rack and pinion mechanism which has continuous motion of 25 inches. Stand is equipped with tripod head which can be tilted, tipped and rotated in all directions. Excellent stand for photo instrumentation work.

D1202 SALTZMAN 500MRA SIDE ARM ATTACH-MENT is valuable addition to above camera stand. Enables camera to be positioned almost at floor level and up to 28 inches with slight adjustments.

D1203 SALTZMAN 500MBT TRIPOD DOLLY is a special base which glides on three roller bearings and permits easy movement of any camera stand or tripod. Three locks provided to hold legs motionless when desired. Extension arms are telescopic in order to accommodate varying heights of camera stands and tripods.

D8973 HOUSTON-FEARLESS ALL-METAL TRI-POD LEGS in standard length has flat-top casting which accommodates Mitchell-type friction head, O'Connor Models 100 and 200A fluid heads or almost any model gear head. A tie rod attaches each leg to a center tube, leveling the tripod automatically and preventing slippage. Tips are fitted with combination quickly convertible spike and rubber-faced pad.

D8974 HOUSTON-FEARLESS ALL-METAL TRI-POD LEGS in three-quarter length is similar to above.

GEAR HEADS



D1545 WORRALL 2-SPEED PAN AND TILT GEAR HEAD will accept Mitchell BNC and other cameras of similar weight. Extremely smooth pan and tilt action.

D1601 CECO BLIMP-TYPE TWO-SPEED GEARED HEAD offers two-speed pan and tilt, slow and fast. Provides extreme tilts. Super-smooth action, rugged construction.

D1546 CECO BRIDGE PLATE, permits mounting Mitchell 16, Standard, NC, Maurer, Arriflex 35, etc. to above.

D1544 THOMAS 2-SPEED PAN AND TILT GEAR HEAD for BNC or other blimped studio camera.



D1555 MITCHELL PRECISION GEAR HEAD features externally mounted gear boxes which provide fast and slow speeds. Additional gear boxes with any two different ratios may be purchased on special order. Unlimited range of speeds is possible simply by changing gear boxes which are held securely in position with two large thumb screws. Two gear box fittings on base permit mounting of gear boxes and panning wheels on either the left or right side. Third fitting at back accepts gears for tilt, maximum tilt being 43° down and 27° up without a wedge. Variable wedge for extreme tilts of 87° up and 90° down is available. Large counter-balanced wheels are mounted off-center on gear boxes. Pan and tilt

brakes lock head in any desired position. Large spirit level also provided. Balance plate provides built-in adjustment to correct center of gravity of camera and accessories. Mounting is standard and will fit any Mitchell tripod or any dolly.

D1556 Variable Wedge

D1557 Bridge-plate (for unblimped cameras)

D4025 MOY GEARED HEAD is precision made by British cine-craftsmen. Has both fast and slow speeds with 360° pan and 38° tilt movements. Counter balanced crank for panning and braking levers for both pan and tilt action. 10 inch model for 16mm and other light weight cameras. Fits tripods or dollies.

D4026 16 inch Model. Similar to above but for heavier cameras

D4027 22 inch Model. Similar to above but for heaviest studio cameras

D4028 MOY GEARED HEAD TILT WEDGE allows tilting camera at extreme up and down angles. For 16 inch model

D4029 Similar to above but for 22 inch model

TRIPOD ACCESSORIES

D1563 NATIONAL CINE EQUIPMENT CO. COL-LAPSIBLE TRIPOD SUPPORT "SPIDER" is a three arm lightweight tripod support for placement on the floor to prevent tripod slippage or damage to surface. It is constructed of Dural Aluminum and is adjustable for any tripod spread. May be used with baby tripod legs.



D1564 Similar to D1563 but equipped with special locking devices for securing tripod legs to spider arms. Provides additional safety and permits moving camera, tripod and spider as a single unit.

D1562 NATIONAL CINE EQUIPMENT CO. ROOF-TOP TRIPOD TIE-DOWNS are employed to lock camera tripod to roof platform of camera car, station wagon or truck. Tie-downs assure rigid locking of tripod legs. Made of bronze with steel screws that clamp against the tripod point castings. When not in use the clamps lock off against a recessed section in the base casting, thus preventing their shaking loose while vehicle is in motion. Tie-downs sold in sets of three.

D4040 TRIPOD HEAD JACKS are attached between bottom of tripod top plate and top base of tripod head to insure complete stability of head when shooting scenes requiring absolute rock steadiness such as background plates. May be used with Mitchell or Mitchell-type tripod heads.

D4050 TRIPOD TIE-DOWN CHAINS assure a stationary tripod in any position. Chain attaches to tripod turnbuckle and camera dolly or to floor with stage screw and "S" hook (included).

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D6005 JUNIOR TRIPOD STA-SETS are circular rubber-ribbed non-slip pads that may be attached to tripod points and locked with a set screw. Allows using a junior tripod on any highly polished surface or uneven terrain, such as stairs, where the use of a triangle or rolling dolly is impractical. Swivel insert is self-adjusting to any leg spread.

D7687 BLUE POINT CORP. STEDI-REST is a versatile, light-weight, inexpensive camera brace that enables you to shoot steady, smooth, evenly panned motion pictures. Constructed of aluminum in two hinged pieces with padded shoulder and waist braces. Allows both hands full freedom to adjust lenses. Camera may be positioned to accommodate individual user for most comfortable viewing. Folds compactly for hand carrying. Weighs only 9 oz.

D4035 PROFESSIONAL JUNIOR AIRPLANE BRACKET is a unique device which permits mounting Pro Jr. tripod head on any firm support. Has two heavy duty clamps and a double position slide rod. Base of bracket is machined to accept Pro. Jr. or similar tripod heads. Adapters for other than Pro. Jr. tripod head also available.

D4025 TRIANGLE J AUTOPOD allows shooting through the windshield of any car, truck or jeep. It is clamped to the underside of the dashboard to the floor. A spike-foot fits into a center punch identification. It can be easily installed and removed or transferred from one vehicle to another. The Autopod is engineered to dampen vibration which would develop under normal road conditions. A supplementary shock-resisting brace, the Triangle J Support Arm is available for extremely rough roads or high speed driving. The Autopod is available with various tripod heads. Write for complete data and specify camera.

Gordon Enterprises Engineering Department, Precision Machine Shops and Assembly Shops are thoroughly qualified to make all types of custom adaptations, so that standard motion picture and instrumentation cameras may be modified for special filming applications. Lens Turrets, Lenses, Magazines, Torque Take-up Motors, Timing Lights, Tracking Finders, Heaters, etc. may be adapted to extend capabilities of cameras. Engineering proposals will be gladly submitted to meet your requirements.

X4091 UP-RIGHT PORTABLE ALUMINUM SCAF-FOLDS are light, compact, readily transportable work platforms that are Ideal for camera parallels. Easily handled by one man, rolls through standard doorway and may be set up on stairways or uneven terrain. Units collapse for transporting. May be adjusted for any height and used in various "stacked" combinations. Built-in stairway. Stairway and braces snap into place and lock automatically by means of specially designed automatic locking hooks. Bonded teejoint construction. Instant leg adjustment. Single lever action locks flex-sorb free-wheeling caster wheels. Braking action adjusts automatically to load and compensates for any wheel wear. May be mounted on pick-up truck or camera car. Available in many types, models, sizes and configurations. Please write for full details stating your requirements.

TRIANGULAR DOLLIES



D1559 NATIONAL CINE EQUIPMENT CO. COLLAPSIBLE THREE WHEEL TRIANGULAR TYPE DOLLY (Also known as "Bicycle Dolly") is designed for support and movement of motion picture or television camera together with operator. It is of sturdy cast aluminum construction and folds into a single compact lightweight unit secured by screws into the center mount casting. Baby tripod point holders are provided to control spread of baby legs. Dolly can be used with any professional or semi-professional tripod. Tread plates on both sides provide standing space for both the cameraman and assistant cameraman to follow-focus. Extra wide rubber wheels prevent side sway. Adjustable spring mounted seat for operator. Floor hand jack screws can be used for leveling or locking in position. Sturdy steering handle for in-line movement is removable when not required.

D1560 Carrying Case

D1561 Low Seat (for use with baby tripod)



D1590 NCE COLLAPSIBLE TRIANGLE DOLLY is constructed of aluminum castings and aluminum tubing. May be used with heavy duty professional tripods as well as light weight tripods. Folds into a compact unit by simply loosening a single hand screw in center of dolly casting. Equipped with tripod tie-downs for rigid locking of tripod legs, 4 inch rubber tired ball bearing wheels, foot actuated, quick release wheel locks provided for locking dolly for stationary filming. Dolly is perfectly matched unit for use with NCE Hydrofluid Tripod.

D1655 J. G. MCALISTER TRIPODOLLY is a folding tripod dolly available with two types of tripod tie-downs for both professional and junior type tripods. (Please specify type of tie-down desired when ordering). Extra set of tie-downs, either type, may be purchased separately and instantly interchanged. Sturdy steel construction, readily portable, spider arms lock securely or may be collapsed for carrying. Balanced four

inch ball bearing casters with dependable brakes allow for tracking, free wheeling or may be locked for stationary shooting. Large center ring accommodates tripod tie-down chain.



D2080 QUICK-SET HERCULES TRIPOD DOLLY is designed for "Z" and "Trucking" photography. "Y" construction permits working in extremely close quarters and maneuvering through a doorway as narrow as 30". Dolly rolls on 4" diameter neoprene wheels mounted on heavy duty ball-bearing swivel casters. Each caster has three-way swivel control — (1) free swiveling — (2) locked for two track straight line travel. Each caster has a foot-operated brake which locks wheel and swivel simultaneously. When the brake is applied to all casters, the dolly is locked against movement in any direction. An exclusive feature is offered in the method of attaching the tripod to the dolly. Ball and socket legs connect between the foot plate and tripod leg permits adjusting the length of the legs without unclamping the plate. Foot plate of the Hercules Tripod fits into a recess in the caster unit and it is held in place by a sliding clamp. The caster unit also has a recess to receive a steel spiked tip. Stirrup clamps are available when attaching the tripod when fitted with spikes. Carrying capacity: 500 lbs. Weight: 16 lbs.

D2081 QUICK-SET HERCULES TRIPOD DOLLY is similar to above but designed for the 3/4 length Hercules Tripods.

D2032 QUICK-SET GIBRALTAR TRIPOD DOLLY (standard length) is similar in construction to HERCULES dolly. "Y" construction permits maneuvering through a 36" wide opening. Diameter of caster circle folded $35\frac{1}{2}$ " x 16" x 12". Height above floor $9\frac{1}{2}$ ". Carrying capacity 500 lbs. Weight 34 lbs.

D2033 QUICK-SET GIBRALTAR TRIPOD DOLLY is similar to above but for $\frac{3}{4}$ length tripod.

D1555 CECO PROFESSIONAL JUNIOR 3-WHEEL PORTABLE DOLLY is designed for medium weight tripods of the Pro-Jr. class. Two-position foot control on each wheel enables operator to dolly in straight line or to free wheel for steering. Collapses into easy-to-carry package only $8\frac{1}{2}$ " x $27\frac{1}{2}$ ". Weight: $15\frac{1}{2}$ lbs.

D1556 CECO PROFESSIONAL SENIOR 3-WHEEL PORTABLE DOLLY has same features as Pro-Jr. listed above but is larger and sturdier. Collapsible size is $9\frac{1}{4}$ " x $11\frac{1}{4}$ " x $29\frac{1}{2}$ ". Weight: 18 lbs.

D1557 MAGNESIUM DOLLY TRACK (specify number of feet).

D3811 MULTA-DOLLY is a versatile combination Dolly, Tripod Triangle (with clamps), Hi-Hat and Baby Tripod. Can be used for low (12 inch) dolly shots. Has three heavy rubber 4 inch swivel tires with wheel locks. Weight: 15 lbs. Size: 56 inch diameter; folds to 7" x 10" x 18". 8 inches high at center. Can be used in combination with various tripods.



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TRIPOD DOLLIES AND CRANES



D1572 NATIONAL CINE EQUIPMENT, INC. "HYDROLLY" has camera boom arm actuated by hydraulic cylinder and powered by manually operated pump. (Combination Model has both hand and electric motor driven pump unit.) Pump can be operated by either cameraman or dolly operator. Boom has steady, jerk-free downward movement which can be locked at any position. Boom can be lowered in 20 seconds, and raised in 40 seconds with hand pump. Four solid rubber, ball-bearing mounted wheels. Rear wheel steering. Dolly to floor lock screws provided as well as a wheel locking device installed on steering handle. Maximum Height: 66 inches. Minimum Low: 15 inches. Weight: 495 lbs. for Hand Pump model; 595 lbs. for Combination Hand and Electric Pump model. Two seats. Cameraman's seat works in conjunction with leveling arm. Assistant's seat is adjustable or can be removed. Camera tilt leveling adjustment arm is attached to tripod head mount. Horizontal adjustment screws provided. Dolly section constructed of heavy gauge steel, welded for rigidity. Uprights and boom arm of aluminum castifier.

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possible by the contract of th

D1569 Deluxe model is same as above, but can be moved sideways by using lever to turn front wheels at right angles. Rear-end raises on to small fifth wheel. Seats for cameraman and assistant.

D1574 HOUSTON FEARLESS RESEARCH COUNCIL CRANE has an overall length of 13 ft. 2 in. and a chassis length of 6 ft. 2 in. Chassis width is 2 ft. 4 in. Lens height at top position is 10 ft.; at the lowest position is 2 ft. 4 in. Lens reach from both front and side of wheels is 7 ft. Approximate weight is 2000 lbs. 100 volt DC operation, 100 amps.

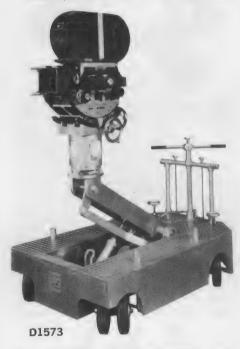
D1565 AC converter

D1566 71/2 ft. track length

D1567 15 ft. track length

CRAB DOLLIES

CRAB DOLLIES feature dual steering of both front and rear wheels, either individually or together. Any combination of camera movements — straight, curved, angled, right-angle turns, etc. — can be easily made, smoothly and silently. One man can quickly position and align a crab dolly for either moving or static shots. Shooting time is drastically cut because the camera can be precisely positioned for static shots or moved for continuous filming in which several set-ups are combined in one take. The crab dolly is indispensable in modern production shooting because of the moving effects possible and the set-up time saved.



D1573 NATIONAL CINE EQUIPMENT, INC. "CRAB HYDROLLY" has noiseless hydraulic boom arm which raises and lowers by finger-tip control. Boom arm is actuated by an accumulator which is loaded manually by hand hydraulic pump or motor. Four sets of dual ball-bearing wheels with pneumatic, or semi-pneumatic tires. Crab steering and conventional back steering (by pressing knob on top of steering column). Release button changes steering from conventional to crab. Floor locks provided. Maximum Height: 54 inches (62 inches with hi-hat). Minimum Low: 22 inches (30 inches with hi-hat). 8 inch hi-hat supplied. Weight: 550 lbs. Three seat positions are provided. Chassis is constructed of welded aluminum. Boom arm is cast aluminum. Adjustable vertical leveling arm is installed to keep camera always level. Electric motor for 115 volt AC or 220 volt AC, 50 or 60 cycles, can be supplied to pre-load accumulator. Motor is installed within unit and does not alter appearance of Crab Hydrolly.

D1571 MOVIOLA "CRAB DOLLY" has hydraulic power to raise or lower boom. Oil supply furnished from accumulator, which is charged by hand pump or 115 volt AC-DC electric pump. Leveling plate at top of boom located off center for better load distribution. Four sets of 10 inch diameter dual ball-bearing wheels with $3\frac{1}{2} \times 10$ pneumatic tires (100 pounds pressure). Brake holds dolly in position. Steering selected by control on steering wheel. No limits on rotation of steering column. All wheel spindles turn through

same angle for crab steering. For conventional steering, front wheel spindles are fixed and rear are turned by cam mechanism. All wheel spindles can be locked with wheels parallel to length of carriage. Maximum Height: 60 inches (72 inches with hi-hat). Minimum Low: 22 inches (without hi-hat). 12 inch hi-hat available. Weight: 510 lbs. Seats for two can be mounted in four positions on carriage and two positions on boom. Seats on boom remain level at all positions. All aluminum construction. Adjustment for wheel alignment and chain tension are readily made.

has hydraulic controls for "up" and "down" lift at natural height and on steering bar for quick and convenient accessibility. 120 volt AC-DC. Hydraulic system achieves maximum pressure in 60 seconds. Pressure switch cuts off automatically. Protected by circuit breakers. Also equipped with hand pump. 4 sets of 12 inch diameter dual wheels with 3 x 7 pneumatic tires (70 pounds pressure). "Single action" type brakes — merely push lever down to hold dolly securely in position. Steering bar is 37 inches high. Maximum Height: 48 inches (60 inches with hi-hat). Minimum Low: 17½ inches (without hi-hat). 6 inch and 12 inch hi-hats available. Weight: 525 lbs. Seats for two, may be moved into any of four positions. Adjustable for height. Side boards (front and both sides) are standard equipment.

D9051 PITMAN AERIAL CAMERA PLATFORM Model 50-HD is a versatile, low price, high capacity, compactly designed and precision operated elbow-type boom that is unmatched in portability, simplicity and safety features. Various truck mounted models are available to fiany production filming situation. Camera platform can be placed at 50 feet working height. Platform arm may be rotated through full circle in 45 seconds. Boom and turntable remote controlled from platform through positive, antifriction, flexible cables, and from turntable by direct actuation of metering, series type hydraulic control valve. Hydraulic outriggers and optional rear spring lockouts controlled from the ground (curbside) by direct actuation of valves mounted on main frame. Unit is furnished complete with metal platform, upper and lower boom sections, turntable and A-frame type hydraulic outriggers. Model 50-HD is designed for installation over rear axle of truck only. Outriggers must be used at all times. When used on level ground and installed on a truck meeting factory recommendations, Model 50-HD has a rated capacity of 500 pounds at any boom height or radius.

D9052 PITMAN AERIAL CAMERA PLATFORM Model 40-HD is similar to above but with camera platform working height of 40 feet.

D4165 VERSA CAMERA CRANE is designed for industrial and medical photography where it is necessary to position a camera in a high overhead position. Crane holds camera only (does not support cameraman). Light-weight all-aluminum construction combined with a sturdy design makes this camera crane extremely useful in a variety of filming situations. Entire unit may be transported in a station wagon. Camera position is adjustable from 18 inches to 96 inches. Boom may also be mounted on heavy tripod. will support heavy 35mm cameras with complete safety. Full 360 degree rotation. Six adjustments afford precise leveling control. Boom is perfectly balanced by lead counterweights. Dolly has two fixed wheels and one steering wheel. Equipped with 3.50 x 4 pneumatic tires for quiet, smooth movement. Folds flat for storage and transporting. May be purchased complete or as separate Boom and Dolly units.

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KENYON GYRO STABILIZER

KENYON GYRO STABILIZER is an ingenious device for stabilizing the longitudinal axis of any hand-held camera or optical instrument such as sextants or binoculars. It will dampen vibration from a moving platform or involuntary movement of arms. Takes the heartbeat out of the hands. Provides a firm resistance through application of gyroscopic principles. Known in professional motion picture circles as the "invisible tripod" it provides rock steady hand-held pans and tilts, even when shooting from airplanes, helicopters, boats and moving cars. Constructed of aluminum alloy housing enclosing hermetically sealed, electrically driven gyroscopes. Precision ball bearings on all moving parts. Standard ¼-20 tripod mount attaching screw. ¾-16 tripod adapter available. Three models are available:



D3812 KENYON GYRO STABILIZER MODEL KS-3 for light cameras

D3813 KENYON GYRO STABILIZER MODEL KS-4 is double the capacity of KS-3 for medium weight cameras

D3814 KENYON GYRO STABILIZER MODEL KS-6 is double the capacity of KS-4 for heavy weight cameras



KENYON PORTABLE POWER PACKS have pocket-size external charger and built-in 115 volt AC, 400 cycle inverter.

D3815 KP-4B Portable Power Pack for KS-3 and KS-4

D3816 KP-4C Portable Power Pack for KS-4 and KS-6

D3817 KPB-4B Battery for KS-3 and KS-4

D3818 KPB-4C Battery for KS-4 and KS-6

D3819 KPI-4 Inverter (Replacement)



D3820

D3820 KPC-4B Charger, 110 volt AC

D3821 KPC-4B-240 Charger, 240 volt AC

D3822 Replacement Charger Lamps 25T8DC/1F

NOTE: The following inverters are smaller than a pack of cigarettes and may be easily installed where space is limited.

D3823 KI-32-1 Inverter, 32 volt DC, marine

D3824 KI-28-1 Inverter, 28 volt DC, aircraft

D3825 KI-24-1 Inverter, 24 volt DC, marine

D3826 KI-12-1 Inverter, 12 volt, marine/auto/aircraft

D3827 KPP-1 Panel Plug Assembly for Inverter with 20 ft. extension cord; mounting bracket, wire leads, hardware and installation diagram

D3828 KC-3 Converter, 115 volt AC, 60 cycle, with 20 ft. extension cord

D3829 KACP-1 Connector Adapter for Inverter with 20 ft. cord with plug for stabilizer and 10 ft. cord with cigarette lighter adapter

D3830 KAAC-1 Same as above but with alligator clips instead of cigarette lighter adapter

D3831 KBA-3 Binocular Adapter, standard unit, with shims for most standard binoculars

D3832 KE-10 10 ft. Extension cord

D3833 KE-10A 10 ft. Extension Cord — with special connector and socket

D3834 KE-20 20 ft. Extension Cord

NOTE: Special adapters and auxiliary devices available on special order.

The Equipment You Want

For practical reasons, no catalog can possibly include all items in the Gordon Enterprises inventorylargest of its kind in the world. New and improved models . . . purchases and trade-ins of used products change stock continually. Thus, the camera, accessory or processor you want may be in Gordon warehouses right now - although it's not listed in these pages. The world's largest inventory of motion picture and photo instrumentation equipment is the logical place to find what you seek. You can be sure that Gordon Enterprises has what you want.

also, please remember . . . every product listed in these pages is available for rental.

CARTER CAR TOP PLATFORMS

CARTER CARPAC FULL LENGTH CAR-TOP PLATFORM will provide ample support for two men and equipment. Sixteen rubber support cushions distribute weight over entire platform area. Carpac is shipped completely assembled ready for installation. Top quality materials and workmanship throughout. Stainless steel tie-down clamps hold platform securely to car. Turnbuckle fastenings provide quick and easy installation and removal. Stair-type ladder included. Please furnish complete details on year, make and model of car or station wagon when ordering.

D7250 CARTER CARPAC PLATFORM for station wagon, 42 inches wide by 90 inches long, including ladder.

D7251 CARTER CARPAC PROTECTIVE ZIPPER TYPE LUGGAGE COVER for above

D7252 CARTER CARPAC EXTRA WIDE PLATFORM for late models Chevrolet, Pontiac, Oldsmobile, Mercury station wagons and many Carry-all tops, 47 inches wide by 90 inches long, including ladder.

D7253 CARTER CARPAC EXTRA WIDE DELUXE LUGGAGE COVER for above.

CARTER LUGGAGE CARRIERS

CARTER CARPAC DELUXE LUGGAGE CAR-RIER adds extra luggage space to cars or station wagons. It is light weight, beautifully finished and engineered so that load is evenly distributed in center of car. Selfadjusting supports fit any roof contour. Molded rubber cushions protect car top. Positive clip and turnbuckle fastenings secure carrier at any speed. Streamline design enhances look of car. Factory assembled, requires only a few minutes to install.

D7274 CARTER IMPORTED SMALL CAR LUG-GAGE CARRIER for Volkswagen, Fiat, Renault, Volvo and others. Size: 32 inches wide by 48 inches long.

D7275 CARTER SEDANETTE LUGGAGE CARRIER for compact American cars such as Corvair. Comet, Falcon, etc. May also be used on compact station wagons. Size: 42 inches by 48 inches long.

D7276 CARTER SEDAN LUGGAGE CARRIER for regular sedans. Size: 42 inches wide by 60 inches long.

D7277 CARTER EXTRA WIDE 60 INCH LUG-GAGE CARRIER for wide sedans and for front of wide station wagons. Size: 47 inches wide by 60 inches long.

D7278 CARTER COMPACT STATION WAGON LUGGAGE CARRIER for Corvair, Comet, Falcon, and other compact wagons. Size: 42 inches wide by 78 inches long.

D7279 CARTER EXTRA WIDE 78 INCH LUG-GAGE CARRIER for Willys station wagon. Size: 47 inches by 78 inches long.

D7280 CARTER FULL LENGTH STATION WAGON LUGGAGE CARRIER for new model Buick, Chevrolet, Pontiac, etc. Size: 42 inches wide by 90 inches long, with additional supports.

D7281 CARTER EXTRA WIDE 90 INCH LUG-GAGE CARRIER for late model Ford, Mercury, International Travelall, etc. Size: 47 inches wide by 90 inches long, with additional supports.

NOTE: Accessory luggage covers, designed to hold and protect luggage, are available for all carriers (specify model).



MOTION PICTURE EQUIPMENT

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photo meters

REFLECTED LIGHT INCIDENT LIGHT METERS



M1490 GENERAL ELECTRIC "GOLDEN CROWN"
TYPE PR-3 reads reflected light. Incident light
attachment optional. Direct reading in F/Stops.
Pointer may be locked on reading. "Dynacell"
light booster may be attached for very dim light.
Incident light scale equivalents may be transposed to Foot Candles.



M1496 WESTON "MASTER IV" MODEL 745 reads reflected light. Incident light with "Invercone" attachment supplied. Swinging baffle automatically changes high and low light scales. ON-OFF button locks pointer. "U and O" and "A and C" positions cover brightness range and contrast situations with color and black and white films.

M1492 GOSSEN SIXTOMAT X-2 reads reflected light. Reads incident light with built-in diffusion screen. Direct reading for reflected or incident light.



M1489

M1489 GOSSEN LUNASIX ELECTRONIC is the most sensitive, widest range, exposure meter available. Its performance is attained through an electronic circuit which incorporates a specially designed photoconductive cadmium sulfide cell powered by a tiny long-life mercury battery. It measures reflected and incident light (with built-in hemispheric diffuser). The Lunasix has a 30° light acceptance angle, two-button brightness range system, automatic needle lock, built-in battery tester and external zero adjustment. Calibrated for both motion picture and still cameras, ASA 6 to 12,000, f/1 to f/90, 1/4,000th second to 8 hours, Cine from 8 to 128 frames per second, EV-9 to EV+22, .014 to 14,000 foot candles. Complete with neck strap and eveready case.





M1494

M1494 SPECTRA "PROFESSIONAL GOLD SEAL" reads incident light with 3-dimensional Photosphere. Reads incident light in Foot Candles with flat Photodisk. Reads reflected light with Photogrid. Direct reading in either F/Stops or Foot Candles (dual scales). Each meter individually calibrated. 13 ASA Exposure Index slides (calibrated in 1/50th sec., or any other desired shutter speed). Computer scale operation also provided.

M2001 SPECTRA "COMBI-500" PROFESSIONAL EXPOSURE METER combines a selenium cell and a new ultra-sensitive photo-conductive cell. Sensitivity is 500 times that of the average selenium cell meter, 100 times more than the highly sensitive Spectra Professional Meter. Exposures are indicated for extremely low light levels. Under normal lighting conditions the standard selenium cell operates without the aid of the battery. NOTE: The Spectra professional Meter can be converted to the "Combi-500" at nominal cost.

M2002 SPECTRA PHOTOSHIELD is a lightweight metal cover for protecting the Photosphere against accidental damage when not in



m1495 WALZ NORWOOD "SUPER DIRECTOR" reads incident light with 3-dimensional Heliosphere. Reads reflected light with Heliogrid. Direct reading in F/Stops for either incident or reflected light. Heliovalve may be set for any combination ASA Exposure Index and shutter speed. Two Heliovalves available to cover all photographic situations. Valve "AA-K" will handle average light conditions. Valve "L-P" is used with ultra-sensitive film and very low light levels.

M1493 JARO-SALFORD (BRITISH) reads reflected or incident light. (Component parts are interchanged). 0-200, 0-2,000 and 0-20,000 Foot Candles. Direct incident light reading in Foot Candles. Computer is used to read reflected light. Meter may be used in several combinations by varying assembly of component parts: Meter Unit, Cell Unit, B/1 Unit, Range-Change Hood and Extension Unit.



M1875 SEKONIC STUDIO EXPOSURE METER reads both reflected and incident light. Equipped with three-dimensional light collector, three direct reading slides and attachments, LVS and Polaroid readings, from 4 to 32,000 foot candles reading with white disc, ASA .1 to 12,000, from 1 to 1/45, 60 seconds to 1/1000th second, and new direct reading exposure dial. Complete with leather case and neck cord.



M1353 SEKONIC MICROLITE L-88 EXPOSURE METER utilizes a match-head sized cadmium sulfide photo resistor cell and a dime-sized mercury battery that will provide carefree service for well over a year. Gives accurate reading under very low light levels. A dual range system provides perfect accuracy under the entire range of lighting conditions from dimly lit living rooms to sun drenched beaches. ASA indexes from 6 to 12,000, f/1 to f/32, 16 seconds to 1/2,000 second, LVS numbers from 3 to 19, direct reading movie speeds from 8 to 64 f.p.s. and new Unit Value film speeds from 1° to 12°.

M1860 FAIRCHILD EXPOSURE METER for high speed photography is of reflectance type with an acceptance angle of 1½°. Meter focus is set for nominal subject distance of 6 feet. Exposure ratings for both black and white and color films are read directly on the calculator in terms of lens "f" stop openings as related to picture taking rates (pictures per second). The calculator has integrated light value scale calibrated for subject incident illumination levels of from 0 to 500,000 foot candles. A high and a low scale separately calibrated for 0-25,000 and 0-500,000 foot candles is provided. ASA film index values of 2.5 to 20,000 and picture taking rates from 100 to 20,000 pictures per second are incorporated in the calculator.

PHOTO INSTRUMENTATION

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M1850 FASTAX EXPOSURE METER for high speed photography is made for Wollensak by Weston Electric Instrument Corporation. Because of extreme speed of high speed cameras, a conventional exposure meter cannot be used. This special high speed meter is made exclusively for use with high speed cameras. The meter has ranges of 0-3000, 0-30,000 and 0-300,000 foot candles. These ranges cover all light conditions from normal sunlight to extremely high artificial light levels, such as obtained with multiple banks of high-intensity spotlights.



M1813 SPECTRA EXPOSURE METER TESTER is a simple easy to operate device that accurately tests all photo-electric exposure meters.

LEASING

Whether you are a free-lance cameraman, an industrial educational film producer or the owner of a large motion picture studio, Gordon Enter-prises will tailor a Leasing Plan to fit your individual needs and benefits. Leasing enables you to acquire new equipment, replace obsolete equipment, increase production efficiency and profits without depleting working capital or diluting ownership through equity financing. A lease plan makes available all of the advantages of using equipment you need without the burden of large capital investing and the risks of obsolescence. Operating under a leasing arrangement assures your organization of modern equipment at the least expense. All of the durable items in the catalog (anything that is not consumed in use) can be leased. Leasing is very similar to outright purchase. Decide what you want and immediately upon approval of your lease the items are delivered to you and installed if necessary. Payment is made at intervals arranged to suit your particular organization. Upon expiration of the lease term you have three choices: (1) return the equipment, (2) renew the lease at reduced rates, (3) buy the equipment for a nominal value. Write or call us with your requirements and we will propose a leasing plan to fit your operation.

world's largest selection of photographic lenses at gordon enterprises

FOOT CANDLE METERS

WESTON "MODEL 614" FOOT CANDLE METERS reads incident light only with flat disk. Low, medium and high ranges. Direct reading in Foot Candles only. "Photronic" cell is mounted on hinge so that it can be set at an angle for easy reading. Supplied calibrated in any desired ranges.



M1813

M1497 WESTON MODEL 614: 0-100/250/500 Foot Candles.

M1498 WESTON MODEL 614: 0-60/120/600 Foot Candles.

WESTON MODEL 703 SIGHT METERS are pocket size direct reading incident light meters. Use of the Sightmeter Multiplier disk will extend the range ten times its normal full scale value.

M1499 WESTON MODEL 703 TYPE 7 SIGHT-METER: 0-100 Foot Candles.

M1500 WESTON MODEL 703 TYPE 6A SIGHT-METER: 0-75 foot candles with Viscor filter.

M1501 WESTON MODEL 703 TYPE 3A SIGHT-METER: 0-75 foot candles without Viscor filter.



M1491 GOSSEN TRI-LUX MODEL C reads incident light (reading taken with flat disk on remote handle). Double unit construction. Flat disk on remote handle is wired into meter case. Direct reading Foot Candle scale has two rows of numbers.

BRIGHTNESS SPOT METERS



M1502 SPECTRA BRIGHTNESS SPOT METER measures the brightness of a small spot from a remote location. This self-contained, inexpensive portable instrument is a valuable tool for the motion picture or television cameraman. Reads directly in footlamberts having a spectral response closely approximating that of the C.I.E. luminosity curve. Also provides rapid accurate data for many specialized applications such as measuring uniformity of illumination on projection screens from any distance or angle (independent of color response of the observer). Objective lens of meter may be focused from 4 ft. to infinity. Unit can be mounted on 1/4-20 tripod socket. Full scale readings of: 50, 500, 5000, and 50,000 footlamberts. Scale multipliers: X1, X10, X1000.



M1575 SPECTRA BRIGHTNESS SPOT METER MODEL C-3 is designed for portable use, speed in measurement but at a lower cost, still maintaining the reliability of higher priced SPECTRA instruments. It reads directly in footlamberts having a spectral response closely approximating that of the C.I.E. luminosity curve. Human error is entirely eliminated.

M1505 ZOOMAR S.E.I. is an extremely versatile exposure meter that measures reflected light by the comparison method. Direct reading can be made in footlamberts without the necessity of conversion into foot candles. Brightness range from 1 to 1,000,000. Standard brightness for comparison is controlled by photo-electric cell and microammeter. With leather case.

M1503 ELWOOD FOTO-METER is designed to read very small areas of light on subject from any distance or position. Does not measure wide angles of scattered light and is unaffected by background lighting. Powered by miniature Mallory mercury batteries which have approximate 2-year life.

M1504 Leather carrying case.



MOTION PICTURE EQUIPMENT

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COLOR TEMPERATURE METERS



M1825 SPECTRA THREE COLOR METER for indoor and outdoor use, reads directly on two scales: blue-red and red-green in Spectra Index Units. Has table for conversion from 2000°K to Units. Has table for conversion from 2000 kt 30,000° k, or can be read in direct Kelvin degrees (on optional scale). Calculator indicates filters required for correction for color temperature and additional green correction. May be used with all types of color films. Pistol-grip housing, inclined dial for easier reading. Models covering shorter ranges with direct-reading Kelvin scales available.

> ask the cameraman who has rented from gordon enterprises



M1256 GOSSEN SIXTICOLOR can be used out-doors or under artificial light. Reads from 2600°K to 20,000°K directly in Kelvin degrees or in Micro Reciprocal degrees (MIRED values: derived by dividing one million by the Kelvin degrees). Meter may be preset for any type of color film. One hand operation. Color temperature reading is locked in and automatically in-dicates filter necessary for color correction.

M1263 HARRISON & HARRISON COLOR ATTACHMENT FOR WESTON MASTER EXPOSURE METER can be used outdoor or under artificial light. Reads in Kelvin degrees from 2800°K to 30,000°K. Color filter-wedges interchangeable by plunger movement in front of aperture. Set needle on 3.2 on Weston scale through red wedge, then shift to blue wedge moves Weston needle to correct Kelvin reading, also showing correct filter, if any is needed.

M1264 HARRISON & HARRISON COLOR ATTACHMENT FOR GENERAL ELECTRIC D.W. EXPOSURE METER is similar to above. Set needle at 20 foot candles on scale through red wedge, then shift to blue wedge moves needle to correct Kelvin reading, also showing correct filter, if any is needed.

TEMPERATURE M1280 KELVILUX COLOR METER evaluates Kelvin readings for proper filter selection from 2000°K to 10,000°K, outdoors. Meter is in two units. Main body has built-in zero galvanometer connected with measuring head by extensible cable. Measuring head has two photoelectric cells which are exposed through an opal glass and colored filters. Three position switch permits adapting instrument to prevailing light intensities.

THE TREND TO 8MM SOUND

see page 57



COLOR **TEMPERATURE** M1275 REBIKOFF METER can be used outdoors or under artificial light. Reads degrees Kelvin from 2000°K to 10,000°K. Electric bridge with 2 photoelectric cells. Cells are covered by red and blue filters coupled to micro-ammeter with needle. Direct mechanical reading from light source. Degrees Kelvin indicated from filter chart. indicated by arrow. Filter is selected

LENS CALIBRATION EQUIPMENT

M1935 ZOOMAR OPTICOMETER MARK II can be used for testing infinity setting of still cameras, testing infinity setting of motion picture cameras, checking the flange focal distance of lenses, checking the distance scale on lenses or cameras, determination of focal length of lenses, determination of lens resolution, determination of focal shift caused by spherical aberration, determination of lateral color, determination of longitudinal color, determination of astigmatism, field curvature and coma, measuring of distortion. A focusing wide angle eyepiece is conven-iently located as part of a specially developed unique high contrast beam splitter, which lets the operator observe the return beam of the lens under test through the auto collimator. Lamphouse, eyepiece, low voltage transformer, filter arrangement, beam splitter, collimator and instrument base are combined in a streamlined aluminum housing.

M1934 ZOOMAR T-METER is an instrument based on the extended light source principle and allows T-Stop calibration in a fool-proof way, without making it necessary to collimate the light source and to determine the focal length of the lens. It accommodates every photographic or cinematographic lens up to a diameter of three inches and up to an overall length of 17 inches. It can be operated by an unskilled person with little instruction, and gives very accurate results independent of voltage fluctuations and other outside disturbances. It is a compact unit, containing everything to measure light transmission of lenses. Every instrument is supplied with two standard lens mount holders. Other standard lens mount holders can be obtained through the manufacturer.

Range: From T/1.2 to T/22 Maximum Lens Diameter: 3 inches Maximum Lens Length: 20 inches (from front to

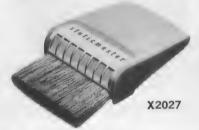
Operates on 1000 watts, 115 volt AC-DC.

NUCLEAR STATICMASTER PRODUCTS

STATICMASTER BRUSHES clean surfaces of dust, lint, or any substance held to a surface dust, lint, or any substance field to a strace by static attraction. One brushing action removes the attracted particles and destroys the static electricity. The powerful ionizer Polonium, which is built in the ferrule of the brush, is an alpha emitter and immediately neutralizes any surface in close proximity. Freed of static charge, the tiniest particles of foreign matter are brushed away with the jaguar hair bristles. Once neutralized, surfaces will not reattract dust and lint until recharged by rubbing or handling. Staticmaster brushes are excellent for cleaning optics, camera parts, films, color transparencies, records, prisms, instruments, small gears, etc. Staticmaster brushes are dated and carry an unconditional guarantee one year, although effective life of the Polonium strip is up to two years. A Static-master "Ionizing Unit" is also available for mounting on tape recorders, dictating machines, mimeographs, multigraphs, small offset presses, teletype machines, electronic similar machines where a strong neutralizing charge is desired to remove static electricity. Ionizing bars are available in increments of 2 inches, up to 24 inches in length. A flexible arm unit is available to place the unit in any desired position. sition. Write for complete details and state length of strip required.

X2025 STATICMASTER Model 1S50 is 1 inch

X2026 STATICMASTER Model 1S200 is 1 inch brush with Extra Powerful Element



X2027 STATICMASTER Model 3T125 is 3 inch

X2028 STATICMASTER Model 3T500 is 3 inch brush with Extra Powerful Element

gordon enterprises maintains

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on products of leading manufacturers of motion picture equipment.

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lenses

Gordon Enterprises' stock of professional lenses for motion picture and photo instrumentation recording constitutes the largest inventory of its kind in the United States. Some are special purpose optics suitable for specific application. Others are stock mounted lenses that can be fitted to standard model cameras. Many lenses may be custom adapted or specially mounted to fit your particular photographic requirements. Every lens is bench tested before leaving the Optical Department. Since lens stocks are constantly changing, it is impossible to list every new and reconditioned lens on hand. The LENS CHARTS on the following pages are, to the best engineering knowledge, the most comprehensive listing of motion picture and photo instrumentation lenses ever compiled. These charts are designed to show quickly which lenses are available from stock and which lenses can be custom mounted for a specific camera. The charts may be utilized in two ways (1) Select the camera at the top of the chart. Immediately below, in the vertical column, you will find which lenses are available. (2) Select the lens you require in the left hand column and read across to find if it is available in the particular mount for your camera. An "S" designates that the lens is available in a "STOCK" mount supplied by the manufacturer. A "C" designates that the lens may be "CUSTOM MOUNTED" by Gordon Optical Department to function with that particular mount and camera. Only lenses deemed practical for custom mounting are so designated. Lens and mount combinations having optical and/or physical limitations that are impractical, too costly or otherwise doubtful, are not listed. Lenses should be ordered by both Lens Number and Mount Letter. Example: An Eastman Cine Ektar 63mm f/2 in 16mm Type "S" mount would be ordered thus: L4005E. Lenses made by leading optical companies are listed in alphabetical order:

ANGENIEUX
BAUSCH & LOMB
BELL & HOWELL
BERTHIOT CANON
CENTURY EASTMAN
ELGEET ELITAR
GORDON ENTERPRISES
KERN PAILLARD

KILFITT KINOPTIK
LEITZ NIKON
PACIFIC OPTICAL
RODENSTOCK
SCHNEIDER
TAYLOR-HOBSON
WOLLENSAK
ZEISS ZOOMAR

And all other manufacturers.



MMOT Mitchell conic MMOT	-																	ی د																	John Joseph Solumn
70MM Hulcher 103	-	-		-				-	-	-							-	ی د	_							1		1							- Par
70MM Hulcher 102	-	+	+	+				+		-	-		+						+				+			1		+	1					1	197
70MM Hulcher 100 & 101			-	-	-	-		+	+	-	+				+				+			+	+	+		0	ی د								
70MM Flight Research	_		+	-	+			+	+	+	-								+			1	ت	ن	U	0	ن د								
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	4		+	-	+	-		-	-	-	+			-	ی د	-		ی د	-	-		2)	ے د	ت	J	U	ی ر	5	1			ပ	0	ی د	٥
4	0	-	-	+	+	-		-	-	-	+			S	-	+		S	+	U	ن ر	2	ے د	2	C	U	ی ر	5				ပ	0	ی د	٥
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16MM Mitchell	_	4	Δ·	3 3 3 3	5 5	5 5	4 S	S	A r	3 5	5 2			+	+	U			2	-			SE			-	-	3	F						3
16MM G.S.A.P. (N-9, KB-3)	×	3	0	ی د	0	0	O	2	0		0	-		+	-	-		-	5	+		-	טנ	-	-	-	2	-	+	ے د	+	-	-	U C	-
16/35MM Fastax	-	-	-	-	+	+	-		-	-	+	+		-	+	2			-	+-	-	-	ی د	-	-		U	-	6	ے د	ی د	C	U	0	2
		-	-	-	+	-			-	-	ט פ	-		-	-	0		-	٥	+		-	ی د	-	-	ပ	-	5	(ے د	ن د	U	U	0	ن
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16MM Eastman Reflex "R"	-				-	-				-		+			-	2			2		63	-	ی د	+	-	S		5	6	ے د	ں د		-	-	ပ
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16MM Bolex Reflex					0	. 0	S	S	S	0) 0	, 0	1				C	-		2	-		-	-	ی د	-	-	-	+	-	-	מט	+	-	-	-
16MM Arriflex	V					-	-				-	+			-	ں ں	0	0	9			-	-	-				1		-	-			-	-
equipment modifications adaptations complete studio lighting	TV BALTARS (continued)	L1521 20mm f/3.5	25mm f/3.5	L1523 25mm f/2.5	35mm f/2 5	11526 50mm f/3.5	50mm f/3.5	50mm f/2.5	L1529 75mm f/3.5	1530 75mm f/3.5	1531 100mm 1/3.5	Bell & Howell	20	L2001 25mm f/1.9	L2002 35mm f/1.9	2003 50mm 1/1.9 2004 75mm f/1.9	2005 100mm f/1.9	.2006 6 inch f/3.5	2007 10 inch f/4	3001 50mm f/1.2	L3002 50mm f/1.8	L3003 85mm f/1.8	100mm f/2	13005 135mm 1/3.5	200mm f/3.5	L3008 300mm f/4	3009 400mm f/4.5	3010 600mm t/5.6	CENTURY PRECISION	L3501 100mm 1/2	L3502 150mm f/2.2	L3504 230mm f/2.8	L3505 230mm f/3.8	300mm f/3.5	300mm f/4.5
Gquir modinadap			L1522 2	11523 2	11524 3		11527 5	11528 5	L1529 7	L1530 7	11531 1	Bell &	MILTARS	L2001 2	C 12002	12003	L2005 1	12006	12007 1	CANON	L3002	L3003 8	L3004	13005	C L3007	L3008	L3009	L3010	CENTUR	L3501	13503	L3504	L3505		L3507
70MM Mitchell							-			+	+					+									ن										
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70MM Hulcher 102	-	Н			+	-	+-	+				-	1			+	1							T	ن	,									
70MM Hulcher 100 & 101				-	+	+	+	1				-			1		1																		
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C1, \$1, Will not cover full 16mm frame. C2, \$2, Will not cover full 35mm frame. C3, \$3, 16mm format only. C4, \$4, Fixed focus only. C5, \$5, Requires "C" mount adapter.

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CAMERA VIEWFINDERS

B1283 16MM AURICON AUTOMATIC PARALLAX VIEWFINDER Model EIF-20 provides an erect, needle-sharp, correctly oriented, ground glass image. Both eyes may be used. Automatic parallax adjustment is controlled by a cam-plate located inside housing. Cam-plate can be supplied for various camera lens — viewfinder interoculars. Full finder area covers 17.5mm lens. Colored plastic mattes, for other focal lengths, are carried in built-in magazine. Area outside frame is clearly visible through color area of matte. May be attached to most popular cameras. Please specify make and model of 16mm camera so correct camplate may be supplied.

B3283 35MM AURICON AUTOMATIC PARALLAX VIEWFINDER Model EIF-20 is similar to above but for 35mm cameras. Covers 35mm lens with full finder frame. Please specify make and model of 35mm camera so correct camplate may be supplied. NOTE: Custom brackets may be required for other than Auricon, B & H Filmo and Eyemo cameras.

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built this business

That is the reason why Gordon Enterprises has achieved world leadership in both inventory and all-around service of motion picture and photo instrumentation equipment.

A1068 35MM MITCHELL VIEWFINDER has large, brilliant, correctly oriented image which can be matted by two adjusting knobs graduated to correspond with any focal length lens in any aspect ratio or TV "cut-off". Cross-hairs allow centering with taking lens by means of parallax adjusting screw on bottom of finder which swings from camera clamp bracket. Lens adapters for both wide-angle and telephoto lenses screw in front of finder lens for decreasing or increasing image size to accommodate all focal length lenses with largest possible finder image. Finder may be unhooked from camera clamp bracket and swung free for threading film. While primarily designed for Mitchell cameras, this finder can be adapted for almost any camera or blimp by attaching proper brackets. Write for information stating make and model of camera.

A1072 Wide-angle Reducing Finder Adapter Lens

A1073 Telephoto Enlarging Finder Adapter Lens

B1100 16MM MITCHELL VIEWFINDER is similar to above but is calibrated for 16mm focal length lenses.

B1103 Wide-angle Reducing Finder Adapter

D9211 16MM MACO PROFESSIONAL VIEW-FINDER has correctly oriented image with engraved 25mm lens aperture outline and center cross-hairs. Secondary magnifying lens gives an enlarged view. 15mm to 100mm lens areas may be accommodated with accessory mattes. Both eyes may be used. Focuses from 2 feet to infinity with parallax correction on engraved scale. Easily mounted, aligned and locked. Does not interfere with use of matte box. Available with mounting bracket for all popular 16mm cameras. Please specify camera when ordering.

D1650 CECO PERISCOPE FINDER is designed for use with the Mitchell Erect Image Viewfinder. It enables the cameraman to view more comfortably through the finder when the camera is in a very low or very high set-up or other inconvenient position.



D1649 BELL & HOWELL TRACKING FINDER is excellent for tracking rapidly moving objects since position of cameraman's eye is not critical (both eyes may be used) and image is always in view whether framed or not. A luminous reticle image is projected in space (showing the fields of various focal length lenses) so that the object being filmed appears actual size with finder frame markings surrounding it. No light loss. 16mm and 35mm lens mattes are interchangeable. Available mounted on B&H Filmo or Eyemo door.



Z8891 382GE Adapter for Bell & Howell Tracking Finder permits use with most 16mm and 35mm cameras.

D1648 SPECTRA MONOCULAR VIEWFINDERS present a greatly magnified image, brightly illuminated even under adverse light conditions, with an engraved lens field and open-center reticle. Horizontal and vertical parallax adjustments are provided. Interchangeable monoculars, utilizing the same mounting bracket, are available in 6 x 30, 7 x 50 and 20 x 50, with various combination lens fields. Fine line or heavy line reticles available in any type of camera aperture, and either 16mm or 35mm cameras. Brackets for all professional cameras. When ordering specify camera aperture, magnification and lens fields desired.

Select YOUR

TRIPODS

HEADS

DOLLIES

CRANES

from listings on pages 24 through 31

16MM BELL & HOWELL VIEWFINDER OBJECTIVES FOR FILMO 70 AND 200

L8651 10mm

L8652 12.5mm

L8653 15mm

L8654 20mm

L8655 25mm

L8656 40mm

L8657 50mm

L8658 75mm

L8659 100mm

35MM BELL & HOWELL VIEWFINDER OBJECTIVES FOR EYEMO

L8675 25mm

L8676 35mm

L8677 50mm

L8678 75mm

L8679 100mm

L8680 152mm

CENTURY PRECISION POSITIVE VIEWFINDER OBJECTIVES FOR TELEPHOTO LENSES

FOR 16MM BELL & HOWELL*

D1983 8 Inch (200mm)

D1894 9 Inch (230mm)

D1895 10 Inch (250mm)

D1896 12 Inch (300mm)

D1897 15 Inch (385mm)

D1989 16 Inch (400mm)

 $^{\circ}\text{May}$ require installation of B & H viewfinder door spacer to clear, if lens is over $2\,^{1}\!/_{\!\!4}$ inch diameter.

FOR 16MM CINE-KODAK K-100 SERIES

D1900 6 Inch (150mm)*

D1901 8 Inch (200mm)

D1902 9 inch (230mm)

D1903 10 Inch (250mm)

D1904 12 Inch (300mm)

*Will clear up to 21/4 inch diameter lens

FOR 35MM EYEMO

D1905 8 Inch (200mm)

D1906 10 Inch (250mm)

D1907 12 Inch (300mm)

D1908 15 Inch (385mm)

D1909 16 Inch (400mm)

D1910 20 Inch (500mm)

D1911 24 Inch (600mm)

D6392 CENTURY OFFSET VIEWFINDER for Bell & Howell Filmo and Eyemo cameras are available for focal length lenses from 8 inch to 24 inch. Please specify focal length of lenses when ordering.



MOTION PICTURE EQUIPMENT

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DIRECTOR FINDERS



D7463 16MM GORDON ENTERPRISES DIRECTOR MINI-FINDER is excellent for studying scene composition and establishing camera set-ups. This inexpensive, brilliant, miniature viewfinder provides camera fields from 16mm to 50mm by use of five swinging masks. Snap-on reducing lens provides field for 10mm wide-angle lens. May be used by persons wearing glasses without image cut-off effect experienced with other viewers. Finished in black and chrome. Complete with neck cord and carrying case. Measures only 3" x 1" x 3/4" and weighs only 2 oz.

D7464 35MM GORDON ENTERPRISES DIRECTOR MINI-FINDER is similar in construction and features to 16mm model but provides 35mm camera fields from 35mm to 100mm. Snap-on reducing lens provides field for 18.5mm wide-angle lens.

D7465 35MM GORDON ENTERPRISES CINEMA-SCOPE DIRECTOR MINI-FINDER is similar in construction and features to standard 35mm model but provides 35mm CinemaScope (and other 2.35/1 ratio 'Scope formats) camera fields from 50mm to 100mm.



D1651 35MM TEWE MOTIVEFINDER is a zoom type director's finder which reveals the most suitable focal length and proper camera position as well as effects of dolly shots, etc. Optics zoom from 18.5mm to 135mm. Supplied with leather carrying case and neck band.

D2650 16MM TEWE MOTIVEFINDER is similar to above but covers 8mm to 75mm fields

D1652 TEWE MOTIVEFINDER Model S, Smaller finder for 16mm and 35mm fields

D1653 TEWE MOTIVEFINDER Model B, for motion picture, TV cut-off and image orthicon aperture

D1654 TEWE MOTIVEFINDER Model C, similar to Model B, but with adjustable built-in mask for various 35mm motion picture wide screen aspect ratios: 1:1.85, 1:2.35 and 1:2.55.

D1655 16MM/35MM DIRECTOR'S ZOOM FIND-ER is used for viewing scene composition for both 16mm and 35mm cinematography. For 16mm, finder zooms from 13mm to 75mm. For 35mm finder zooms from 25mm to 6 inch. Finest optical elements. Black anodized aluminum construction.



D6385 16MM CENTURY REFLEX FOCUS-FINDER in "C" mount is designed for reflex focusing and viewing while camera is running, for close-up cinematography. May also be used with specially shortened telephoto lenses at infinity. Used with normal lenses only for extreme close-ups. Unit consists of 2 inch (50.8mm) extension tube with prismatic beam-splitter. No parallax problem, regardless of subject distance. Image is seen upright, magnified 7X. Adjustable eyepiece.

D6386 16MM CENTURY REFLEX FOCUS-FINDER in "S" mount for Cine-Kodak Special, is similar to above.

D6387 CENTURY EYE-LEVEL PRISMATIC HOR-IZONTAL VIEWFINDER is designed to fit above items for viewing image from rear of camera.

D6389 16MM CENTURY OPTICAL RELAY with reticle. Imprints desired reticle or scale on film. Will operate with any 16mm "C" mount lens. Inverts image; useful for many photo-instrumentation applications. Please write for details.

D6393 16MM "C" MOUNT CENTURY PROFESSIONAL EXTENSION TUBES are available in sets consisting of 4 different lengths: 1/4 inch, 1/2 inch, 1 inch and 11/2 inches. May be used singly or in combination for ultra-close-up cinematography.

D6390 CENTURY LENS SUPPORT BRACKET MODEL 12 for 16mm Bolex, Cine-Special, B & H 70, Kodak K-100 and other cameras. Supports most lenses up to 12 inches focal length. Dampens vibration. Assures sharp, steady pictures

D6391 CENTURY LENS SUPPORT BRACKET MODEL 24 is similar to above but will support most lenses up to 24 inches.

D4001 CAMART OPTICAL FX UNIT and prisms for motion picture and television cameras will reproduce multiple identical images in rotation from a single object. Number of images is dependent upon number of surfaces of prism used. Images can be rotated in either direction by turning a small crank at any desired speed. Prisms available in two, three, four, five, six and seven surfaces. Special prisms available for other effects. Anamorphic distortion prism elongates image in one position and shortens it in another and can be revolved to produce a ripple-like effect. Camera base plate provided with unit will fit most 16mm and some 35mm cameras. Special adapter available for Mitchell 35mm Maurer and Auricon cameras. Housing will fit over sunshade of most television camera lenses. Write for complete list of prisms and camera adapters available.

D4002 CAMART ROTATOR LENS will fit into revolving housing of the above Camart Optical FX Unit and can be used with camera base plate and double arm assembly provided with complete unit. The Rotator Lens reproduces images upside down, sideways, or tilted at any angle. Scenes may be rotated a full 360 degrees in either direction.

VIEWING GLASSES

PANCHROMATIC VIEWING GLASS for determining highlight and shadow densities as they will appear on the screen in black and white photography:

V1894 HARRISON & HARRISON

V1895 SPECTRA

COLOR CONTRAST VIEWING GLASS for determining highlight and shadow densities as they will appear on the screen in color photography:

V1896 HARRISON & HARRISON

V1897 SPECTRA

POLA SCREEN serves to darken blue skies to exact degree desired in both black and white and color pictures. Can also be used to subdue undesirable reflections from glass, water, sand and other non-metallic surfaces to produce glare-free pictures. Please specify Series number when ordering.

E1868 POLA SCREEN

NOTE: Eastman filters are available in "B" glass round Series IV to Series IX and in 2 inch, 3 inch and 4 inch squares. They are also available in 2 inch to 6 inch square lacquered gelatin film. Popular filters are stocked in all sizes, others are available on special order.

please remember

... while this is the most complete catalog of motion picture and photo instrumentation equipment ever published, it cannot possibly include every photographic item in the Gordon Enterprises' inventory — the world's largest and most complete. If the particular product you seek — new or used — is not listed in these pages, please ask our Sales Service Department.

PLUS DIOPTER LENSES

PLUS DIOPTER supplementary lenses are close-up lenses positioned in front of the conventional camera lens to permit close focusing. Please specify series number when ordering.

V2001 +1/2

V2002 +1

V2003 +2

V2004 +3

D6388 16MM CENTURY DUPLIKIN II will reproduce 16mm black and white or color motion picture frames onto 35mm double-frame. Models are available to fit Leica, Exakta, Practika, Canon, Pentax, Nikon Reflex and most other 35mm cameras. (Please specify make and model of camera when ordering.) Unit fits camera in place of lens. Film need not be cut. This is the only precision optical device for reproducing frames of uncut 16mm film onto 35mm film. Makes perfect 10X "blow-up" color slides or black and white negatives.

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BLACK AND WHITE FILTERS

The following filters are the most commonly used for black and white cinematography. Please specify WRATTEN or HARRISON when ordering. Filters can be supplied in any series (round) or in 2 inch or 3 inch squares. HARRISON Filters can also be supplied in any size square or oblong from one inch to seven inches, and also graduated in any color to clear glass, or graduated in any color to any other color.

	WRATTEN	HARRISON	COLOR
E1840	No. 3 (Aero 1)	GY2	Light Yellow
E1841	No. 8 (K2)	YL-3	Yellow
E1842	No. 12 (Minus Blue)	YL-5	Yellow
E1843	No. 15 (G)	YL-6	Deep Yellow
E1844	No. 21	OR-1	Orange
E1845	No. 23A (Red)	RD-4	Red
E1846	No. 25	RD-5	Red
E1847	No. 29	RD-8	Deep Red
E1848	No. 72B	YL-8	Dark Orange- Yellow
E1849	Nos. 87, 88A & 89B	RD-10	Very Deep Red
E1850	No. 56	GR-3	Light Green
E1851	No. 11 (X-1)	GR-4	Light Green
E1852	No. 58	GR-7	Green
E1853	Nos. 23A + 56	YL-7	Red + Green
E1854	No. 47 (C5)	BL-10	Blue

NOTE: BELL & HOWELL, EDNALITE, ENTECO, TIFFEN and WOLLENSAK filters are also available in all popular colors and series sizes.

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	NEUT	RAL DENSITY	FILTERS
	(SPECIFY	WRATTEN OR	HARRISON)
	NO.	DENSITY	TRANSMISSION
E1855	,	.10	80%
E1856	5	.20	63%
E1857	ND-1	.30	50%
E1858	3	.40	40%
E1859		.50	32%
E1860	ND-2	.60	25%
E1861		.70	20%
E1862	2	.80	15%
E1863	3 ND-3	.90	13%
E1864	1	1.00	10%
E1865	5	2.00	1%
E1866	5	3.00	.10%
E1867	7	4.00	.010%

NEUTRAL DENGLEY FILTERS

FILTERS FOR COLOR PHOTOGRAPHY

HARRISON & HARRISON LIGHT CORRECTOR DISCS are filters that allow correcting color temperature of daylight or tungsten illumination to color film in use. "B" (blue) filters raise color temperature of light. "C" (coral) filters lower color temperature of light. Available in Round Series IV to VIII and in square or oblong sizes from 1 inch to 7 inches.

F1830 B-1, B-2, B-3, B-4, B-5, B-6, B-7, B-8 (please specify).

F1831 C-1/8, C-1/4, C-1/2, C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8 (please specify).

KODAK LIGHT BALANCING FILTERS are used over a camera lens to change the color quality of the exposing light to obtain the proper color balance with color films. Each filter in the 82 (bluish) series is equivalent to raising the color temperature of a tungsten source in steps of 100 K, giving the picture a "colder" appearance. Each filter in the 81 (yellowish) series lowers the color temperature in steps of about 100 K, giving the picture a "warmer" appearance.

F1832 81, 81A, 81B, 81C, 81D, 81EF (please specify).

F1833 82, 82A, 82B, 82C (please specify)

KODAK CONVERSION FILTERS are used for converting Eastman tungsten balance color films for daylight use.

F1701 85 (Daylight filter for Kodak Type A color films).

F1702 85N3 (85 combined with .30 Neutral Density for use in very bright sunlight or where a larger aperture is desirable: requires one stop additional exposure)

F1703 85N6 (85 combined with .60 Neutral Density for use in very bright sunlight or where a larger aperture is desirable: requires two stops additional exposure)

F1704 85B (Daylight filter for Kodak Type B color films)

F1705 85C (Daylight filter for Kodak Type F color films)

kodak color compensating filters change the over-all color balance of color results to compensate for possible deficiencies in lighting quality. They can be used singly or in combination for almost any desired correction. The density of each filter is indicated by the two numbers following the hyphen and the color by the final letter. Please order by "F" stock number and specify density.

F1710	YELLOW	CC-05Y CC-30Y	CC-10Y CC-40Y	CC-20Y CC-50Y
F1711	MAGENTA	CC-05M CC-30M	CC-10M CC-40M	CC-20M CC-50M
F1712	CYAN	CC-05C CC-30C	CC-10C CC-40C	CC-20C CC-50C
F1713	RED	CC-05R CC-30R	CC-10R CC-40R	CC-20R CC-50R
F1714	GREEN	CC-05G CC-30G	CC-10G CC-40G	CC-20G CC-50G
F1715	BLUE	CC-05B CC-30B	CC-10B CC-40B	CC-20B CC-50B

SPECIAL FILTERS

HARRISON & HARRISON FOG FILTERS can be used to produce foggy weather effects either day or night. The following types are available:

V1878 #1 Very light fog.

V1879 #2 Light fog effect.

V1880 #3 Medium fog effect.

V1881 #4 Heavy fog effect.

V1882 #5 Extremely heavy fog.

Specify series number for round filters. Also available in 2, 3, 4 or 5 inch squares.

HARRISON & HARRISON DIFFUSION FILTERS

V1883 D-1 Very light.

V1884 D-2 Light.

V1885 D-3 Medium.

V1886 D-4 Heavy.

V1887 D-5 Extremely heavy.

Specify series number for round filters. Also available in 2, 3, 4 or 5 inch squares.

MITCHELL DIFFUSION FILTERS

V1888 A Slight.

V1889 B Medium.

V1890 C Strong.

V1891 D Heavy.

V1892 E Harsh.

V1893 Variable (2 sliding optical wedges going from A to D).

LIGHT BALANCING & COLOR CORRECTION

ACETATE FILTER ROLLS & SHEETS

COLOR CORRECTION ACETATE FILTERS ROLLS & SHEETS are equivalent to Wratten 85 filter. May be hung over windows to filter and control daylight so that interiors may be balanced with tungsten color emulsions.

W3001 CC FILTER ROLL: 25 ft. x 40 in.

W3002 CC FILTER ROLL: 50 ft. x 40 in.

W3003 CC FILTER SHEET: 2 ft. x 40 in.

LIGHT BALANCING NEUTRAL DENSITY ACETATE FILTER ROLLS & SHEETS are available in: N.D. 20 and N.D. 50 and N.D. 70 (please specify density desired when ordering). May be hung over windows to cut down daylight so that interiors may be filmed at relatively large apertures. This is the same as shooting in daylight with N.D. filter over lens. N.D. rolls and sheets may be used in combination with CC rolls and sheets to both filter and control daylight for interior color filming with tungsten illumination against daylighted windows.

W3004 ND FILTER ROLL: 25 ft. x 40 in.

W3005 ND FILTER ROLL: 50 ft. x 40 in.

W3006 ND FILTER SHEET: 2 ft. x 40 in.

NOTE: Both CC and ND filter rolls can be supplied on special order made up as shades with sewn edging, with or without grommet holes.



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MAGNASYNC SYNCHRONOUS SOR Magnatia FILM RECORDER

Magnaphonic sound system

MAGNASYNC PORTABLE RECORDERS



H2020 16MM MAGNASYNC X-400-E-1 RECORDER is a complete synchronous magnetic film recording and reproducing channel, professional in every detail. The X-400 consists of two units which combine into a compact portable case. The units may be operated side by side for "Console" operation or stacked on each other for field use. Positive projector interlock can be made with a simple flexible-cable gear-box attachment. Frequency response 50 to 8,000 cycles. 400 ft. film capacity may be increased to 1200 ft. by adding extension arms. High speed (4:1 ratio) rewind from reel to reel or synchronous reverse through sprocket drive. Standard unit furnished with 110 volt AC, 60 cycle, single phase, salient pole synchronous motor. Other drive motors, such as 50 cycle, 3 phase, 220 volt or Selsyn interlock available. $3\frac{1}{2}$ inch VU meter monitors input signal at all times. Monitor output will feed any impedance above 500 ohms. Monitor direct through amplifier or switch to "Film Monitor" for simultaneous playback from film approximately 1/5 second after recording is made. Dialogue equalization switch. High gain low impedance microphone input. High impedance input. Consumes only 60 watts, including amplifier and motor drive. SMPTE Standard Performance. Measures only $7\frac{1}{2}$ " x $15\frac{1}{2}$ " x 19" and weighs only 27 pounds.

H2021 Extension Arm kit for 1200 ft. reels Model X-43

H2022 Footage Counter Model X-42

 $\mbox{\bf H2023}$ Cable Assembly for use with G-924 Mixer Model X-41

H2024 Dust Cover D-6



H2050 16MM MAGNASYNC X-400-E-15 RE-CORDER is a complete, top quality sound system — recorder, playback monitor amplifier, loudspeaker — in a single compact case. Frequency response 50 to 8,000 cycles. Will accommodate standard 1200 ft. film reels for 33 minutes recording. Simplified single switch for all motor control functions. Direct coupled, high resistance rotor torque motors. Simultaneous film monitor through separate play head. "Record" indicator lamp protects recorded takes. Accurate, chain coupled, easy to read footage counter. Equipped with 110 volt AC, 60 cycle, single phase, salient pole synchronous motor. 220 volt, 50 cycle, 3 phase; Selsyn interlock, or other motors available. 3½ inch VU meter monitors input signal. Built in monitor speaker and power amplifier. Monitor output will feed any impedance above 500 ohms. Auxiliary speaker output 4-8 ohms with 2 watts of power. Dialogue equalization switch. Bias voltage meter readout. SMPTE Standard performance.



H2075 16MM MAGNASYNC 602-E-1 RECORDER is a miniaturized version of the popular Type 5 Recorder. This high-fidelity portable recorder is designed around a compact, high-quality film transport employing dual inertia wheels which permit reduction of size and weight of all components while maintaining high degree of essential motion stability. Sound recorded with this unit is completely free of flutter and wow. Receding arms support 1200 ft. (33 minutes) film capacity. High-speed (4:1 ratio) rewind. Footage counter adds and subtracts. Powered by 110 volt AC, 60 cycle, single phase, salient pole synchronous motor. Also available with 220 volt, 60 cycle, 3 phase synchronous motor (for use with camera using multi-duty motor). Amplifier has 4 inch VU meter to monitor both input and output signals. Frequency response 50 to 8,000 cycles. Zero-level monitor through 600 ohm balanced line output; monitor output will feed any impedance above 500 ohms; speaker output 4 to 8 ohms with one watt of power; monitor "direct" through amplifier or switch to "film monitor" for simultaneous playback from film. Dialogue equalization switch with bass roll-off from 300 cps to minus 16 db at 50 cps. High gain microphone input and bridging input. Overall size is 8" x 11" x 11" and weight is 39 pounds.

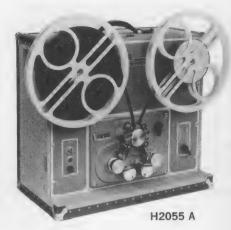
H2076 $17\frac{1}{2}$ MM MAGNASYNC 702-A-1 RECORD-ER is similar to above but accommodates $17\frac{1}{2}$ -mm film.

WITH THOROUGH UNDERSTANDING

of the vital role of proper lighting in effective motion picture production, Gordon Enterprises Lighting Department offers qualified counsel, service and equipment.

FOR PROFESSIONAL LIGHTING OF ANY AREA, from small office to an entire sound stage or football field, you can depend on Gordon Enterprises personnel and material — to light the production completely, efficiently and quickly.

FOR BETTER LIGHTING EQUIPMENT call 766-3725, North Hollywood.





H2055 16MM MAGNASYNC 602-E-5 RECORDER is especially popular with independent film producers because it incorporates many extra features which has made it the most universally accepted sound system produced in America. Safety interlock prevents recording in reverse position. Microscopically ground and polished recording and playback heads. High resistance rotor torque motors employed for take-up, rewind and fast forward. Separate record gain and playback controls. Amplifier is shock mounted. Built-in speaker with two watt power amplifier. Film transport features dual "Synkinetic" flywheels which prevent polygonal effect and assure low flutter. Bias voltage meter readout. Record indicator light. "A-B" monitor selector. Dialogue equalizer control. 4 inch VU meter monitors input signal. Footage counter adds and subtracts. Powered with 110 volt AC, 60 cycle, single phase, salient pole synchronous motor. Other drive motors such as 50 cycle, 3 phase, 220 volt, or Selsyn interlock also available. SMPTE standard performance. Complete in two deluxe carrying cases.

H2056 17½ MM MAGNASYNC 702-A-5 RECORDER is similar to above but accommodates $17\frac{1}{2}$ -mm film.

H2057 35MM MAGNASYNC 135-A-5 RECORDER is similar to above but accommodates 35mm film. Can be converted to $17\frac{1}{2}$ mm

H2058 Dust Cover D-2 for mechanism

H2059 Dust Cover D-3 for amplifier

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MARK IX SOUND SYSTEM

MAGNASYNC MARK IX MAGNAPHONIC SOUND SYSTEM is a revolutionary concept in sound recording channels, which may be completely operated by one man from the mixer station or employed for studio use by two or three man team. Film transport utilizes portable enclosure of lightweight aluminum alloy with extruded protective rings. High resistance rotor torque motors are push-button operated. Plug-in head assembly is mounted on precision ground base plate. Bias meter in transport panel gives extra protection. Switch interlock prevents rewinding in record position. Rack panel, made of ½ inch dural plate, is 19 inches wide by 12½ inches high. Film capacity is 1200 ft. Torque motor brake button and buzzer signal button mounted in slanting sub-panel with torque motor controls. Ground spring adjustment for various film stock. Amplifier features recording, playback and bias oscillator circuits enclosed in separate plug-in assemblies. Input transformer is strapped to accept a bal-anced line at 600 ohms from mixer. Optimum service accessibility to all amplifier components is achieved through an arrangement whereby the chassis is hinged to the rear door of the transport case. The finest components are used throughout, including sub-miniature ruggedized tubes. Electrical and mechanical functions are controlled through small remote assembly. This unit is packaged in separate portable case for use with any quality speech input system or integrated with models G-932 and G-924 Magnasync microphone mixers. Push-button motor controls, remote footage counter, Record-Play and Film-Direct Monitor Switch are included in the remote control assembly.

MAGNASYNC MARK IX PORTABLE SYSTEMS



H2080 16MM MAGNASYNC 916-E-1 RECORDER (formerly basic system "A") is MARK IX with remote control for use with any quality speech input system; push-button controls, remote footage counter, Record-Play and Film-Direct switches.

H2081 17½MM MAGNASYNC 917-A-1 RECORD-ER is similar to above but accommodates 17½mm film.

H2082 35MM MAGNASYNC 935-A-1 RECORDER is similar to above but accommodates 35mm film.

H2083 16MM MAGNASYNC 916-E-2 RECORDER (formerly system "C") is MARK IX with Magnasync Model G-924 microphone mixer with remote control assembly in matching cases, which hasp together to form a single carrying case.

H2084 $17\frac{1}{2}$ MM MAGNASYNC 917-A-2 RECORDER is similar to above but accommodates $17\frac{1}{2}$ mm film.

H2085 35MM MAGNASYNC 935-A-2 RECORDER is similar to above but accommodates 35mm film.

H2086 16MM MAGNASYNC 916-E-3 RECORDER (formerly system "B") is the MARK IX with Magnasync Model G-932 slide-wire attenuator microphone mixer, built-in remote control assembly. Optional portable enclosure matches MARK IX recorder.

H2087 17½MM MAGNASYNC 917-A-3 RECORD-ER is similar to above but accommodates 17½ mm film.

H2088 35MM MAGNASYNC 935-A-3 RECORDER is similar to above but accommodates 35mm film



H2095

H2095 16MM MAGNASYNC MARK IX SAFARI CONSOLE 916-E-9 has complete sound system in blimped cabinet housing mounted on mobile trailer. Includes camera and recorder power supply and G-924 microphone mixer.

H2096 $17\frac{1}{2}$ MM MAGNASYNC MARK IX SAFARI CONSOLE 917-A-9 is similar to above but accommodates $17\frac{1}{2}$ mm film.

H2097 35MM MAGNASYNC MARK IX SAFARI CONSOLE 935-A-9 is similar to above but accommodates 35mm film.

NOTE: MAGNASYNC can supply custom magnetic recording and reproducing heads for all purposes, made to specification.

Camera Adaptations

Gordon Enterprises Engineering Department, Precision Machine Shops and Assembly Shops are thoroughly qualified to make all types of custom adaptations, so that standard motion picture and instrumentation cameras may be modified for special filming applications. Lens Turrets, Lenses, Magazines, Torque Take-up Motors, Timing Lights, Tracking Finders, Heaters, etc. may be adapted to extend capabilities of cameras. Engineering proposals will be gladly submitted to meet your requirements.

NOTE: MAGNASYNC also offers a complete line of stereophonic recorders and reproducers in 16mm, $17\frac{1}{2}$ mm and 35mm models in various types and combinations, as well as custom designed equipment. Please write for detailed listing.

MAGNASYNC MARK IX STUDIO SYSTEMS

MAGNASYNC MARK IX STUDIO RECORD-ING/REPRODUCING SYSTEMS are deluxe machines mounted in recessed rack cabinets. All racks are standard 19" x 77".

H3001 16MM MAGNASYNC STUDIO RECORDER Model 916-E-4 utilizes the same transport as the portable MARK IX. This system features slanting panel control unit and playback speaker.

H3002 $17\frac{1}{2}$ MM MAGNASYNC STUDIO RECORDER Model 917-A-4 is similar to above but accommodates $17\frac{1}{2}$ mm film.

H3003 35MM MAGNASYNC STUDIO RECORDER Model 935-A-4 is similar to above but accommodates 35mm film.



H3004

H3004 16MM MAGNASYNC STUDIO RECORDER Model 916-E-10 features basic MARK IX transport mounted vertically in rack to provide increased film capacity (2400 ft.). Optionally, the Type 10 can be furnished with lucite doors, inching knob and film driven footage counter.

H3005 $17\frac{1}{2}$ MM MAGNASYNC STUDIO RECORDER Model 917-A-10 is similar to above but accommodates $17\frac{1}{2}$ mm film.

H3006 35MM MAGNASYNC STUDIO RECORDER Model 935-A-10 is similar to above but accommodates 35mm film.

H3007 16MM MAGNASYNC STUDIO DUBBER Model 916-E-11 is similar to Type 10 recorder. This dubber features "inching" knob, film driven footage counter and rewind shut off switch. Optionally available is an electrical reel braking modification.

H3008 17½ MM MAGNASYNC STUDIO DUBBER Model 917-A-11 is similar to above but accommodates 17½ mm film.

H3009 35MM MAGNASYNC STUDIO DUBBER Model 935-A-11 is similar to above but accommodates 35mm film.

MAGNASYNC MODULAR MIXING CONSOLES

MAGNASYNC MODULAR MIXING CONSOLES may be made up by selecting from a wide variety of integrated components to meet individual requirements. Modular construction allows expansion to fit any studio growth pattern and prevents danger of equipment obsolescence. Write, specifying your needs and our sound engineers will assist you in choosing and laying out the ideal package for your sound set-up.



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H3040 16MM MAGNASYNC X-400-E-2 RACK MOUNT RECORDER is an X-400 film transport on a 19" \times 12 $^1\!4$ " panel with overdrive take-up and rewind. Amplifier on 19" \times 7" rack panel.

NOTE: MAGNASYNC X-400 RECORDERS & REPRODUCERS are for 16mm film only. All other models are available in 16mm (Series 602), 17½mm (Series 702), and 35mm (Series 935). 16mm models are available in edge or center tracking. 17½mm available in edge tracking only. 35mm available in SMPTE edge track or 3 tracks. All 16mm models operate at 36 feet per minute. 17½mm and 35mm models operate at 90 feet per minute. This allows "side-by-side" double system editing of original magnetic film and picture. Please specify tracking required.

MAGNASYNC DUBBERS

MAGNASYNC DUBBERS are available individually or in combination of two or three complete units in enclosed rack cabinet. Dubbers allow re-recording several sound tracks onto a master track. Sound effects may be edited to fit the script with blank leader stock between for split-second synchronized effects. (Loop rack attachment also available for continuous sound effect track.) Music track may be scored to pack-aged picture. Music can be re-scored without affecting other portions of the master track. Dialogue track may be recorded in isync with camera, or post recorded in sync with projected picture. Dubbers feature studio preamplifiers, individual drive motors, and torque motor take-up on 602 series.



H3030

H3030 16MM MAGNASYNC DUBBER Model 602-E-11 has 1600 ft. film capacity, fast forward and fast rewind, synchronous, salient pole drive motors, footage counter on each dummy, wired for remote control and has same film transport as Type 5 Recorder. Selsyn motor interlock available. Please specify edge or center tracking and number of dubbers desired when ordering. Playback preamplifier on 51/4" rack panel. Plus 4 DBM 600 ohm balanced line output.

H3031 17½ MM MAGNASYNC DUBBER Model 702-A-11 is similar to above but accommodates 17½ mm film.

H3032 35MM MAGNASYNC DUBBER Model 135-A-11 is similar to above but accommodates 35mm film.

H7305 16MM MAGNASYNC 602-E-12 DOUBLE DUBBER (Mechanical Interlock) has two type 11 transports in deluxe rack. Power supply with 2 plug-in pre-amplifiers, plus 4 DBM output. Type 12 uses timer belt mechanical interlock.

H7306 $17\frac{1}{2}$ MM MAGNASYNC 702-A-12 DOUBLE DUBBER (Mechanical Interlock) same as above but accommodates $17\frac{1}{2}$ mm film.

H7307 35MM MAGNASYNC 135-A-12 DOUBLE DUBBER (Mechanical Interlock) same as above but accommodates 35mm film.

H7308 16MM MAGNASYNC 602-E-22 DOUBLE DUBBER (Electrical Interlock) has M-470 Selsyn interlock and relay on each transport, installed in deluxe 77" rack, ready to use with distributor.

H7309 17½ MM MAGNASYNC 702-A-22 DOUBLE DUBBER (Electrical Interlock) same as above but accommodates 17½ mm film.

H7310 35MM MAGNASYNC 135-A-22 DOUBLE DUBBER (Electrical Interlock) same as above but accommodates 35mm film.

H7311 16MM MAGNASYNC 602-E-13 TRIPLE DUBBER (Mechanical Interlock) has three Type 11 transports in deluxe rack. Power supply with 3 plug-in pre-amplifiers plus 4 DBM output. Type 13 uses timer belt mechanical interlock.

H7312 $17\frac{1}{2}$ MM MAGNASYNC 702-A-13 TRIPLE DUBBER (Mechanical Interlock) same as above but accommodates $17\frac{1}{2}$ mm film.

H7313 35MM MAGNASYNC 135-A-13 TRIPLE DUBBER (Mechanical Interlock) same as above but accommodates 35mm film.

H7314 16MM MAGNASYNC 602-E-33 TRIPLE DUBBER (Electrical Interlock) has M-470 Selsyn interlock and relay on each transport, installed in deluxe 77" rack, ready to use with distributor.

H7315 17½MM MAGNASYNC 702-A-33 TRIPLE DUBBER (Electrical Interlock) same as above but accommodates 17½mm film.

H7316 35MM MAGNASYNC 135-A-33 TRIPLE DUBBER (Electrical Interlock) same as above but accommodates 35mm film.

H3035 16MM MAGNASYNC X-400-E-11 SINGLE DUBBER consists of mechanical section mounted on rack panel 12½" x 19", power supply with provision for three plug-in preamplifiers mounted on rack panel 5¼" x 19" and one plug-in preamplifier. The single dubber is furnished less rack cabinet. If later expansion is anticipated it is recommended that an R-42 Rack Cabinet be purchased.

H3036 16MM MAGNASYNC X-400-E-12 DOUBLE DUBBER consists of above plus an additional mechanical section, plug-in preamplifier and interlock assembly, with two gear boxes.

H3037 16MM MAGNASYNC X-400-E-13 TRIPLE DUBBER consists of power supply, 3 plug-in preamps, 3 transports, mechanical interlock and 42" rack cabinet.

H6085 MAGNASYNC X400-E-11-2 SECOND "ADD ON" DUBBER UNIT includes transport, one plug-in preamp and mechanical interlock assembly with two gear boxes.

H6086 MAGNASYNC X400-E-11-3 THIRD "ADD ON" DUBBER UNIT includes as above one gear box.

H3025 MAGNASYNC G-924 MULTI-CHANNEL MICROPHONE MIXER is a 19 pound miniature console. Units fasten together into a single portable case which is attractively styled in gray leatherette, with rugged fiber bindings. Separation of the two units in either side-by-side or

stacked set-up greatly reduces the problem of AC hum in that the power section is completely isolated from the input section. Features dialogue equalization on each incoming channel, master gain control, built-in microphone talk-back system, and ready accessibility to all parts for quick and easy servicing in the field. Accepts 3 low impedance microphones and 1 High Level Source.

SOUND SERVICE

Gordon Enterprises offers a Sound Consultation Service to independent film producers. If you have any sound problem, whether it is choosing equipment for a particular type of production or equipping a sound stage for scoring, dubbing or re-recording, our sound experts can aid you. Let us help you plan your electrical interlock system, suggest types of equipment and wiring required, recommend consoles, microphones, mixers, cabinets and accessories best suited to your set-up. We can help you in laying out a complete sound system for a new studio, show you how to bring your present sound equipment up to date or start you out with a basic sound set-up that will allow for expansion as you grow. Let us help you custom plan a sound system to meet your audio requirements.

MAGNASYNC 900 SERIES CONSOLETTES

H3050 MAGNASYNC G-961 STUDIO MIXING CONSOLETTES have six channels, line level, precision ladder attenuators. Includes one G-801 program equalizer that can be inserted in any of the input channels or in output of mixer. VU meter, film direct monitor.



H3051 MAGNASYNC G-963 STUDIO MIXING CONSOLETTE is a G-961 Consolette plus G-803 (3 equalizers) and may be inserted in any 3 input channels.

H3052 G-964 TABLE FOR STUDIO CONSOLETTE
29 inches high x 37 inches deep x 75 inches
wide.

H3053 G-967-R RIGHT HAND EXTENSION for consolette provides panel space of 19" x 83/4" for mounting equipment such as M-790 distributor control, PA40 monitor amplifier and special filters and equalizers.

H3054 G-967-L LEFT HAND EXTENSION

H3055 G-970 TALK BACK MICROPHONE AND PREAMP for mounting in lower corner of consolette. Talks back over bridging buss in consolette.

H3056 G-971 REFERENCE LEVEL OSCILLATOR 1000 cycle with adjustable volume control to match level on consolette and recorder.

H3057 S-801 PLUG-IN MICROPHONE PRE-AM-PLIFIER 1, 2, or 3 or may be added to 900 Series Consolettes.

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MAGNASYNC PROGRAM EQUALIZERS

H3058 MAGNASYNC G-801 SINGLE EQUALIZER with 8 positions of low frequency boost and attenuation, 8 positions and high frequency boost and attenuation designed especially for motion picture equalization. Mounted on standard $3\frac{1}{2}^{\prime\prime}$ x 19" panel.

H3059 MAGNASYNC G-803 TRIPLE EQUALIZER same as G-801 except 3 equalizers are mounted on standard $31\!\!/_2$ " x 19" panel.

MAGNASYNC MICROPHONE MIXERS

H3060 MAGNASYNC G-924 MIXER features 4 channels, (3 microphones and 1 bridge) with dialogue equalization for each channel, talk-back system and provisions for battery power pack.

H3061 MAGNASYNC G-932 MIXER features 2 channels with slide-wire attenuators, 2 step high and low equalization for each channel, talk-back system and illuminated V.U. Packaged in dural enclosure. Provision for battery power pack.

H3062 CARRYING CASE for above styled to match Mark IX.

MAGNASYNC INTERLOCK ACCESSORIES

H3080 MAGNASYNC M-790 DISTRIBUTOR CONTROL PANEL for remote operation of six to eighty units in an interlock system. Mounted on rack panel 7" x 19" with "slow start" distributor motor control, switches and pilot lights. For use with M-801 distributor.

H3081 MAGNASYNC M-791 DISTRIBUTOR CONTROL PANEL same as M-790 except "slow start" distributor motor control is motor driven, enabling operator to run system from any auxiliary remote location by push button control.

H3082 MAGNASYNC M-792 DISTRIBUTOR CONTROL PANEL same as M-790 except for use with M-802 distributor.

H3083 MAGNASYNC M-793 DISTRIBUTOR CONTROL PANEL same as M-791 except for use with M-803 distributor.

H3090 MAGNASYNC M-801 DISTRIBUTOR is heavy duty interlock with 110 volts, single phase, 50/60 c.p.s. drive and excitation for system employing M-431 or M-432 interlock motors. Rated to operate up to 6 standard recorders, dubbers or projectors.

H3091 MAGNASYNC M-802 DISTRIBUTOR is heavy duty interlock with 220 volt 3 phase, 50/60 c.p.s. drive motor, with 110 volt single phase Selsyn excitation. For use with M-431 and M-432 interlock motors.

H3092 MAGNASYNC M-803 DISTRIBUTOR is heavy duty interlock with 220 volt 3 phase, 50/60 c.p.s. drive motor. Excitation 220 volt, 3 phase. For use with M-430 interlock motors. Rated to operate up to 6 standard recorders, dubbers, or projectors.

H4001 M-450 INTERLOCK MOTOR and sub case for type 5 Magnasync. Recorder is easily disconnected for location recording. Armature shaft of synchronous motor on recorder couples to shaft of M-432 interlock motor.

H4002 M-451 INTERLOCK MOTOR AND SUB-CASE as above but for 135 type 5, 35mm recorders.

H4003 M-460 INTERLOCK MOTOR and sub case for 602 type 1 recorder

H4004 M-461 INTERLOCK MOTOR and subcase for 135 Type 1 35mm portable recorders.

Since Edison's Kinetograph . . .

. . . many improvements have been built into motion picture cameras. Many early innovations have become standard, after tests of time.

Unlike automobiles, motion picture equipment does not change every year. Camera accessories, lights, sound systems, processors; do not become outmoded or obsolete a year or two after manufacture. For that reason, many older-model cameras . . . as well as other equipment for the making, processing and showing of motion pictures . . . stays in demand.

Gordon Enterprises maintains the largest inventory of used and rebuilt camera equipment anywhere — including the picture-making tools you may require at this very moment.

If outright purchase is not practicable for you, these products are all available for short — or long — term rental. Whether your selection is new or renewed equipment, purchased or rented . . . you will be protected by guarantee of the world's largest and best-known camera service organization.

H4005 M-470 INTERLOCK MOTOR mounted on 7" x 19" rack panel. For interlocking rack mount Magnasync 602, 702 and 135 series dubbers and recorders.

H4010 M-480 INTERLOCK MOTOR ATTACH-MENT for X-400 type 1 recorders. Complete with M-432 motor.

H4011 MAGNASYNC M-480-A INTERLOCK MOTOR ATTACHMENT for X-400 Type 15 Re-Recorder. Complete with M-432 Selsyn motor.

H4012 M-481 INTERLOCK MOTOR ATTACH-MENT for X-400 dubbers. Complete with M-432

H4013 M-482 INTERLOCK MOTOR ATTACH-MENT for MARK IX equipment. Complete with M-432 motor. Specify whether portable or rack mounted equipment.

H4014 M-430 INTERLOCK MOTOR is heavy duty, 220 volt, 3 phase, excitation with 110 volt, 3 phase secondary. Compatible with Westrex and RCA interlock systems.

H4015 M-431 INTERLOCK MOTOR is heavy duty, 110 volt, single phase excitation with 110 volt, 3 phase secondary. Quotations on 35MM interlock attachments furnished on request.

H4016 M-432 INTERLOCK MOTOR standard duty, 110 volt single phase excitation with 110 volt, 3 phase secondary. Torque rated to operate all models Magnasync recorders and dubbers, as well as 16mm projectors and other "medium duty" equipment.

H4017 M-433 SYNC-INTERLOCK ATTACHMENT for Bell & Howell sound projectors. Projector may be operated synchronously on an interlock system.

H4018 M-434 INTERLOCK MOTOR for Bell & Howell

H4019 M-434-A INTERLOCK MOTOR for Ampro

H4020 M-434-D INTERLOCK MOTOR for 35mm Portable De Vry Projector

H4021 M-434-G INTERLOCK MOTOR for Graflex Galaxy Projector

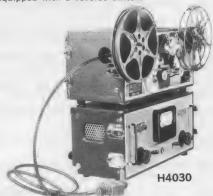
H4022 M-434-J INTERLOCK MOTOR for Jan Projector

H4023 M-434-R INTERLOCK MOTOR for RCA Projector. Factory installation only.

H4024 M-434-P INTERLOCK MOTOR for Kodak Pageant Projector

H3070 M-782 SYNC-SELSYN CONTROL BOX for use with any model recorder equipped with a Selsyn and a projector equipped with a sync interlock attachment M-433. Has receptacles for two Selsyn cables and a Selsyn lock switch. Two receptacles for sync motor control and a switch which energizes both drive motors simultaneously. Complete with two 15 foot Selsyn cables and plugs.

H3072 M-784 SYNC-SELSYN CONTROL BOX as above but with four receptacles for selsyns and four receptacles for four sync motors. Suitable for interlocking two, three or four pieces of equipment equipped with both Selsyn and sync motors. Selsyn equipped X400 series dubbers must have special wiring provided upon request to operate this system. Operates in reverse only if each individual synchronous motor is equipped with a reverse switch.



H4030 M-44-B FLEXIBLE CABLE INTERLOCK ASSEMBLY for Bell & Howell Projector and X-400 series recorder only. A mechanical interlock device allows pictures and sound to be run simultaneously in frame-for-frame synchronization.

H4031 M-44-A FLEXIBLE CABLE INTERLOCK ASSEMBLY for AMPRO projector.

H4032 M-44-G FLEXIBLE CABLE INTERLOCK ASSEMBLY for Graflex Galaxy

H4033 M-44-J FLEXIBLE CABLE INTERLOCK ASSEMBLY for JAN projector.



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H4035 M-44-R FLEXIBLE CABLE INTERLOCK ASSEMBLY for RCA projector. Factory installation only.

H4036 M-44-P FLEXIBLE CABLE INTERLOCK ASSEMBLY for KODAK Pageant projector.

H4040 M-45-B FLEXIBLE CABLE INTERLOCK ASSEMBLY for Bell & Howell Projectors and 602 Series Recorders. Specify for Type 1 or Type 5 portable recorder or rack mount recorder.

H4041 M-45-A FLEXIBLE CABLE INTERLOCK ASSEMBLY for Ampro projector

H4045 M-45-G FLEXIBLE CABLE INTERLOCK ASSEMBLY for Graflex Galaxy Projector

H4047 M-45-J FLEXIBLE CABLE INTERLOCK ASSEMBLY for Jan Projector

H4050 M-45-R FLEXIBLE CABLE INTERLOCK ASSEMBLY for RCA Projector. Factory installation only.

H4051 M-45-P FLEXIBLE CABLE INTERLOCK ASSEMBLY for Kodak Pageant Projector

H7317 M-435 INTERLOCK MOTOR SWITCH discontinued, refer to M-782

H7318 M-437 INTERLOCK MOTOR RELAY

H7319 M-438 INTERLOCK MOTOR miniature type

H7320 M-439 REMOTE FOOTAGE COUNTER in metal enclosure (please specify whether sync or selsyn operated).

H7321 M-440-1 PROJECTED FOOTAGE COUNTER

H7322 M-441-1 PROJECTED VU METER

MAGNASYNC TEST FILMS

NOTE: If requested, test films with the same tracking can be combined, such as F-1 Azimuth with F-3 Multi-Frequency.

H6001 MAGNASYNC F-1 TEST FILM, 16MM edge tracking azimuth, 100 ft. roll.

H6002 MAGNASYNC F-2 TEST FILM, 16MM center tracking azimuth, 100 ft. roll.

H6003 MAGNASYNC F-3 TEST FILM, 16MM edge tracking multi-frequency, 100 ft. roll.

H6004 MAGNASYNC F-4 TEST FILM, 16MM center tracking multi-frequency, 100 ft. roll.

H6005 MAGNASYNC F-5 TEST FILM $17\frac{1}{2}$ MM azimuth, 300 ft. roll.

H6006 MAGNASYNC F-6 TEST FILM $17\frac{1}{2}$ MM multi-frequency, 300 ft. roll.

H6007 MAGNASYNC F-7 TEST FILM 35MM single track azimuth, 300 ft. roll.

H6008 MAGNASYNC F-8 TEST FILM 35MM single track multi-frequency, 300 ft. roll.

H6009 MAGNASYNC F-9 TEST FILM 35MM triple track azimuth, 300 ft. roll.

H6010 MAGNASYNC F-10 TEST FILM 35MM triple track multi-frequency, 300 ft. roll.

MAGNASYNC INTERCONNECTING CABLES

H6050 C-41 CABLE with loss pads and XL plugs for interconnecting G-924 mixer output to X-400 recorder input (25 ft. shielded).

H6051 C-42 CABLE with loss pads and XL plugs for interconnecting 602, 702 or 125 playback output to G-924 mixer input (25 ft. shielded).

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H6052 C-43 CABLE with loss pad and XL plug for interconnecting X-400 dubber output to G-924 mixer input (25 ft. shielded).

H6053 C-44 CABLE multi-lead, vinyl covered, with connectors for MARK IX Recorder with Mark IX remote (50 ft.).

H6054 C-45 CABLE microphone with XL connectors (25 ft. shielded).

H6055 C-46 CABLE interlock motor, less connectors, (50 ft.).

H6056 C-47 CABLE used for connecting 600 ohm high level output from G-900 series consolette to 50 ohm high level input of 602, 702, or 135 recorder.

H6058 C-49 CABLE used for connecting the X400 Type 1 recorder playback output to input of M-80 power amplifier speaker.

MAGNASYNC PORTABLE POWER SUPPLIES

H6025 MAGNASYNC G-951 PORTABLE POWER SUPPLY heavy duty rotary generator with batteries, frequency meter, frequency control, camera dummy load and power factor connection. 24 volts DC input. Delivers 500 watts, 110 volts, single phase, 50 or 60 c.p.s. (please specify). Supplied in heavy duty fibre-bound cases.

H6026 MAGNASYNC G-952 PORTABLE POWER SUPPLY same as G-951 but less batteries.

H6027 MAGNASYNC G-953 PORTABLE POWER SUPPLY similar to G-951 with output rating 500 watts, 220 volts, three phase, 50 or 60 c.p.s.

H6028 MAGNASYNC G-954 PORTABLE POWER SUPPLY same as G-953 but less batteries.

H6029 MAGNASYNC G921 PORTABLE POWER SUPPLY similar to G-951 with output rating 250 watts, 110 volts, single phase 50 or 60 c.p.s. For use with Magnasync equipment and cameras in the class with Maurer, Auricon, Arriflex, Cine Special, Bolex, Bell & Howell, Camerette, etc.

where dummy load and P.F. correction are not required.

H6030 MAGNASYNC G-922 PORTABLE POWER SUPPLY same as G-921 but less batteries.

H6032 MAGNASYNC G-90 PORTABLE BATTERY CHARGER, lightweight

MAGNASYNC RACK CABINETS

H4060 R-77 RACK CABINET deluxe enclosed, 19" x 77" panel space.

H4061 R-61 RACK CABINET deluxe enclosed, 19" x 613/4" panel space.

 $\mbox{H4062}$ R-42 RACK CABINET deluxe enclosed, $19\ensuremath{^{\prime\prime}}$ x $42\ensuremath{^{\prime\prime}}$ panel space.

H4063 R-36 RACK CABINET deluxe enclosed, 19" x 36" panel space.

H4064 R-61-R RACK CABINET deluxe recessed enclosed, 19" x $64\frac{3}{4}$ " panel space.

 $\mbox{H4065}$ $\mbox{R-77-R}$ RACK CABINET deluxe recessed enclosed, 19'' x 77'' panel space.

NOTE: Also available with Lucite doors.

H4025 EM-2 ERASE HEAD MODIFICATION is self-powered, high frequency erase oscillator on 19" x 5½" rack panel with erase head on adapter bracket, for use with any model Magnasync recorder (Please specify). Most common application of this modification is in loop recording for foreign language conversions.

H4026 M-202-1 LOOP RACK ATTACHMENT for 16mm magnetic film dubbers. Holds up to 100 feet of film for looping of sound effects, language conversion, etc.

H4027 M-202-2 LOOP RACK ATTACHMENT same as above but for 17 ½ mm film

H4028 M-202-3 LOOP RACK ATTACHMENT same as above but for 35mm film

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MAGNASYNC MISCELLANEOUS ACCESSORIES

H6070 MAGNASYNC M-80 SPEAKER-AMPLIFIER and accessory case, for X-400, type 1, recorder Attractively packaged in matching portable case.

H6071 MAGNASYNC M-82 RACK PANEL ASSEMBLY for mounting 602 type 1 amplifier in standard relay rack. Complete with all brackets and 6 x 9 P.M. loud-speaker. Measures 19" x $15^{3}4''$.

H6072 MAGNASYNC X-42 FOOTAGE COUNTER ATTACHMENT for X-400 Type 1 recorder. All necessary mounting hardware is furnished for simple installation.

H6073 X-43 EXTENSION ARM ATTACHMENT for X-400 Type 1 recorder. Film capacity is increased to 1200 feet.

H6074 MAGNASYNC M-96 REMOTE CONTROL ATTACHMENT 602, 702, 135 Magnasync recorder or dubber. Includes start, stop and reverse switching with 25 foot cable.

H6090 MAGNASYNC PA-40 POWER AMPLIFIER is a 40 watt high quality low distortion monitoring amplifier for installation in G-900 series consolette. Power switch and volume control mounted on $1\frac{3}{4}$ " x 19" rack panel.

H6091 MAGNASYNC PA-40-R POWER AMPLIFIER with power switch and volume control mounted on 7" x 19" rack panel.

H6075 MAGNASYNC M-97 REMOTE CONTROL ATTACHMENT for Mark IX series recorders, 25 foot cable.

H6076 MAGNASYNC M-98 REMOTE CONTROL ATTACHMENT for X400 series recorders only.

H6080 MAGNASYNC S-35 CONVERSION KIT for all 35mm recorders and dubbers. Includes parts needed to convert $17\frac{1}{2}$ mm transport for alternate $35/17\frac{1}{2}$ mm operation.

H6081 MAGNASYNC M-81 SPEAKER and accessory case for 602 type 1 recorder. Contains 8" loud-speaker, storage space for reels, microphone, etc. Styled and packaged in matching portable case.

H6082 MAGNASYNC 816-100 SPLIT 16MM NOMAD FILM PLAYBACK ATTACHMENT for any series Magnasync rack mounted recorders or dubbers. Consists of one full track and one dual track play head and guide rollers mounted on $5 \frac{1}{4}$ " x 19" rack panel for installation under a standard full 16mm transport mechanism. No electronics. Utilizes flutter damping and filtering system and associated transport.

H6083 MAGNASYNC 816-101 RACK MOUNT POWER SUPPLY CHASSIS is $5\frac{1}{4}$ " x 19" and one plug-in preamp with cathode follower output. One volt into 600 ohms. For use with above.

H6084 MAGNASYNC 816-102 RACK MOUNT POWER SUPPLY CHASSIS is $5\,^1\!\!/_4$ " x 19" and two plug-in preamps as above.

H6101 MAGNASYNC G-51 MAGNETIC FILM READERHEAD ASSEMBLY is a high quality head mounted on heavy duty turret which will turn in order to read either the top or the bottom of the film. Turret is thin enough so that several may be mounted in line with a gang synchronizer. Use amplifier below or any high impedance high gain amplifier speaker.

H6102 MAGNASYNC 816-74 MINIATURE POWER AMPLIFIER WITH BUILT-IN SPEAKER for above reader. Self-powered battery operated.

H6103 16MM MAGNASYNC SPLICER Model S-21 designed for splicing 16mm magnetic film. Stainless steel parts. Splices are made with Mylar splicing tape. Makes diagonal splice.

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MAGNASYNC REELS

H6110 16MM MAGNASYNC M-76-A SPLIT REEL is 400 ft. capacity. Made of Dural.

H6111 16/17½MM MAGNASYNC M-77-B SPLIT REEL is 1200 ft. capacity. Made of Dural.

H6112 35MM MAGNASYNC M-35-B SPLIT REEL is 1200 ft. capacity. Made of Dural.

H6113 MAGNASYNC M-73 LARGE HUB for split film reels. Aluminum spinning. Presses on plastic core.



H6098 MAGNASYNC MULTI-CHANNEL RECORDING/REPRODUCING SYSTEM Model T-1510 utilizes $\frac{1}{2}$ inch tape for recording simultaneous audio transmissions and employs a unique "failsafe" feature that instantaneously detects mechanical or electronic failure and automatically starts standby recorder. No important transmissions are lost. Plug-in transistorized circuitry assures maximum performance with minimum maintenance. Multi-channel recording/reproducing systems in the T-1000 series are available for recording up to 20 simultaneous audio transmissions, for as long as 34 hours on one roll of tape. These systems are especially adaptable for language laboratories, airport, law enforcement, fire department and military communications centers and others.



NOMAD SOUND SYSTEM



H5001 NOMAD MARK I RECORDER-REPRO-DUCER is a seven pound, ingeniously designed, completely transistorized magnetic sound record-er-reproducer. It employs split 16mm sprocketed magnetic film and provides two separate sound tracks (one each for voice and music) which are automatically mixed when played back. This method eliminates the need for sound dubbing and duping of original film where a composite print must be made in order to combine picture and multiple sound tracks at lowest possible cost. The Nomad is mounted beneath the camera. Positive interlock is achieved in either filming or projection by means of a flexible cable. almost any camera can be converted to a sync sound camera by employing the Nomad. Unit may be driven with a DC governor-controlled, or AC synchronous motor which drives both camera and recorder. Nomad is supplied complete with remote control hand mixer, built-in recorderreproducer amplifier with nickel cadmium bat-tery, 100 ft. roll of magnetic film, take up reel and detailed operation handbook. See listing of camera and projector Interlock Kits for accessories required to couple Nomad to various cameras and projectors. See listing titled "Miscellaneous Nomad Accessories" for microphone, earphones, motors, cables, carrying cases, etc. Write for detailed data for your particular make and model of camera and projector.

MISCELLANEOUS NOMAD ACCESSORIES

H5030 Microphone, with 15 ft. cable

H5031 Earphones, single stetho

H5032 Earphones, double stetho

H5033 Earphones, double earpads

H5034 100 ft. reel split 16mm Nomad film

H5035 400 ft. reel split 16mm Nomad film

H5036 Take-up reel 100 ft. capacity

H5037 Take-up reel 400 ft. capacity

H5038 Synchronous, 110 volt AC, 60 cycle, single phase motor assembly, drives the Nomad and spring wound cameras at 24 frames per second. Also makes the Nomad a separate double system synchronous recorder for use with Auricon and other cameras equipped with synchronous motors.

H5039 Synchronous motor assembly, same as above except for 220 volt AC, 50 cycle current (110 volt AC 50 cycle available)



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Bracket, adapts synchronous motor directly to Bolex H-16 Camera for separate double system recording

Form fitting leather carrying case for H5041

H5042 Portable carrying case with compartments for Nomad

1200 ft. adapter, in portable compartmented carrying case, torque motors, feed and take-up spindles

H5044 Extension arms for 400 ft. capacity

Reader-editor with play head H5045

Synchronizer for picture and Nomad

H5047 Miniature power amplifier with built-in speaker for reader



H5003 NOMAD MARK II SEPARATE DOUBLE SYSTEM RECORDER-REPRODUCER records and reproduces 200 mil track on split 16mm mag-netic film. Two microphone inputs with mixing and dialogue equalization. Similar in construc-tion details and features to Mark II Dubber. Features instantaneous "Film-Direct" Monitoring. Contains rechargeable nickel cadmium battery and built-in battery charger. Has same frequency response, signal to noise ratio, distortion and flutter characteristics as Mark II Dubber. Holds 400 ft. roll of split 16mm magnetic film. Sync motor requires only 20 watts. No external power required when interlocked to projector. Uses standard Nomad editing accessories. Case dimensions: 6½" X 8½" X 10" and weighs only 12 pounds.



H5002

H5002 NOMAD MARK II DUBBER is equipped with two separate reproducer heads and amplifiers, with separate gain controls. Dubber re-produces two track split 16mm magnetic film recorded on Nomad Mark I recorder, or single 200 mil track recorded on Nomad Mark II re-corder. Dubber includes 115 volt AC, 60 cycle, single phase salient pole synchronous motor (50 cycle available at no extra cost). Runs forward and reverse. Completely transistorized. SMPTE Standard Performance. Frequency response is Standard Performance. Frequency response is 50 to 8,000 \pm 2db. Signal to noise ratio is greater than 50 db. Distortion is less than 2%. lutter .25% or less. Holds 400 ft. roll of split 16mm magnetic film. Dubber uses all Nomad projector interlocks. Total power consumption only 22 watts for drive motor and amplifier. Separate 10,000 ohm output for each channel and single 600 ohm output of both channels after mixing. Extremely lightweight and portable, attractively housed in rugged carrying case. Also available in rack mount at slight additional cost. Case dimensions: 61/2" X 81/2" X 10" and weighs only 12 pounds.

NOTE: Dubber interlock kits are available to interlock the Nomad with Magnasync Studio Recorder-Reproducers. Write for prices, stating model and serial number of Magnasync Studio Recorder-Reproducer.

SOURCE SERVICE RESPONSIBILITY CALL to 766-3725

North Hollywood

answers ALL your needs in MOTION PICTURE EQUIPMENT

SPECIAL NOMAD KITS

NOMAD KITS contain everything that is required for recording and reproducing sync sound motion pictures: Nomad Mark I recorder, camera interlock kit, microphone, earphones, five 100 ft. reels of split 16mm Nomad magnetic film, battery charger for amplifier, projector interlock kit, etc. All kits except Arriflex include a 110 volt AC, 60 cycle, single phase synchronous motor. The Arriflex 16 utilizes its own motor (either 8 volt DC governor controlled or 110 volt AC, 60 cycle, single phase synchronous). Please indicate make and model number of projector when ordering so proper projector interlock kit may be supplied. Kits are sold for less than total prices of component

H5075 BOLEX/NOMAD Sound System Kit 816-

CINE-KODAK K-100/NOMAD Sound Sys-H5076 tem Kit 816-K3:

H5077 BELL & HOWELL 240/NOMAD Sound System Kit 816-K5.

H5078 ARRIFLEX/NOMAD Sound System Kit

H5079 BELL & HOWELL 70/NOMAD Sound System Kit 816-K4.

H5080 CINE-KODAK SPECIAL/NOMAD Sound

NOMAD CAMERA INTERLOCK KITS (BRACKETS, CABLE, ETC.)

NOTE: All cameras, except Arriflex 16, require no factory modification. Arriflex 16 modification performed in Los Angeles by Gordon Enterprises. If Arriflex 16 is ordered with Nomad we will modify prior to shipment. If Nomad is to be

used with camera on hand, please ship via rail or Air Express for modification. Cost is nominal.

H5004 Arriflex

Bell & Howell Design 70 H5005

H5006 Bell & Howell 240

H5007 Bolex-Paillard

H5008 Cine-Kodak Special

Cine-Kodak K-100 H5009

H5010 Pathe Webo

H5011 Beaulieu

H5012 Wind-up ratchet handle for spring wound cameras

H5013 Bolex stud for ratchet handle

H5014 Cine-Special stud for ratchet handle

Bell & Howell stud for ratchet handle

H5016 Cine-Kodak K-100 stud for ratchet handle

NOMAD PROJECTOR INTERLOCK KITS (CABLE, GEARHEAD, ETC.)

H5020 Ampro

H5021 Bell & Howell

H5022 Kodascope and Pageant

H5023 RCA (includes special sound drive sprocket)

H5024 Victor

H5025 Bolex S-221

H5048 Differential rewind set (pair)

H5049 Bulk eraser

H5050 Standard erase attachment, selective erasing of either channel

H5051 Battery charger for Nomad amplifier

H5052 Extension cable for remote control mixer

H5053 Extension cable for mike (10 ft.)

H5054 Extension cable for external batteries (6 ft.)

H5055 Sound barney (sound absorbing cover for camera and Nomad) for Bolex, B&H 70, K 100, and B&H 240

H5056 Sound barney for Arriflex and Kodak Cine Special cameras

H5057 Plug - miniature phone (output)

H5058 Connector - mike or line (input)

H5059 Cable - XL mike to Nomad mike input (6 ft.)

H5060 Cable - mike or line input to tinned end (6 ft.)

Cable -- miniature phone plug (output) to standard phone plug (6 ft.)

H5062 Cable - miniature phone plug (output) to standard "in line" phone jack (6 ft.)

H5063 Cable - miniature phone plug (output) to tinned end (6 ft.)

H5064 Cable — miniature phone plug (output) to RCA phone plug (4 ft.)

H5065 Battery - nickel cadmium, for Nomad

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RYDER SYNC GENERATORS

RYDER SYNC GENERATORS produce a synchronizing signal that is recorded on the audio tape along with the sound signal. This provides a synchronizing index between picture and sound. During reproduction the synchronizing signal controls the relative position of the tape with respect to the sprocket-driven film, thus effecting synchronization. The 1/4 inch tape may be transferred to either 16mm or 35mm magnetic striped film for side-by-side double-system editing. The edited magnetic sound may be transferred to 16mm sound-striped film or re-recorded to optical track for com-posite release prints. Sync generators are available for custom fitting to cameras or battery powered DC camera motors. Permanent magnets are used in the generator and, therefore, no batteries or amplification is between the generator and the synchronizing record head. These generators will supply the sync pulse to the Perfectone Recorder, equipped with sync pulse recording head, or to any recorder equipped with Rangertone Sync pulse recording head. They will also provide the pulse to a Pilotone equipped recorder. Sync generators are available in various models that provide a 48, 60 or 72 cycle sine wave sync signal. The various sync signals may be resolved on a resolver with a similar cycle. If other than the 60 cycle sync signal is resolved on a 60 cycle resolver it is necessary to go through a frequency converter. Thus a 48-60 or 72-60 frequency converter is required to resolve these respective signals through a 60 cycle resolver. These sync generators are designed to work with 24 frames per second sound speed. They can also be used at 16 frames per second, in which case frequency doublers may be re-quired. Resolving facilities for transferring tape to 16mm or 35mm magnetic film are available in Hollywood at Ryder Sound Services, 1161 North Vine Street, Hollywood 38, California; and in New York at Pathe Sound Services, Inc., 105 East 106th Street, New York 29, New York. Resolvers are available for sale to producers desiring to transfer their own tapes to magnetic film. A Ryder Sync Generator equipped camera or motor offers the simplest, lightest weight and most economical solution to location or studio sync sound filming. Using a battery operated camera and a battery operated 1/4 inch tape recorder eliminates the need of power lines, inverters and heavy wet batteries.



H8301 RYDER 16MM ARRIFLEX SYNC GENERATOR MODEL BM-1-60 is designed for mounting on the rear of the 8 volt DC governor-controlled Arriflex motor. The generator is mounted in an aluminum housing only slightly larger than the motor housing. It is gear driven and produces a 60 cycle sine wave signal that may be resolved on any 60 cycle resolver.

H8302 RYDER 16MM ARRIFLEX SYNC GENERATOR MODEL BM-1-72 is similar to above but is direct driven from motor and produces a 72 cycle sine wave sync signal. It is simpler and less expensive than the 60 cycle generator but requires a 72-60 frequency converter if a 60 cycle resolver is employed.

MAGNETIC SALES CORP. SYNC SOUND EQUIPMENT

MAGNETIC SALES CORP. offers a complete line of sync camera drives and echelon synchronizing magnetic heads so that sound motion pictures can be photographed with any camera equipped with spring, battery-powered DC motor or AC motor. Sound for motion pictures can be recorded on any ½ inch tape recorder. Sound and picture can be projected with any projector and any tape recorder.



H8303 RYDER 35MM ARRIFLEX SYNC GENERATOR MODEL BM-2-60 is designed for mounting on the bottom of the 16 volt DC governor-controlled Arriflex handle motor. Generator is mounted in an aluminum housing approximately the same diameter as the motor housing. Generator is gear driven and produces a 60 cycle sine wave signal that may be resolved on any 60 cycle resolver. Will fit Arri hi-hat or tripod.

H8304 RYDER 35MM ARRIFLEX SYNC GENERATOR MODEL BM-2-72 is similar to above but is direct driven from the motor and produces a 72 cycle sine wave sync signal. It is simpler and less expensive than the 60 cycle generator but requires a 72-60 frequency converter if a 60 cycle resolver is employed.

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H8305 RYDER 16MM BOLEX SYNC GENERATOR MODEL BM-3-60 is designed for mounting on the Bolex DC motor. Generator produces a 60 cycle sine wave signal at 24 frames per second sound speed.

H8306 RYDER 16MM MITCHELL SYNC GENERATOR MODEL BM-4-48 is designed for use with an automatic speed control motor. Generator is mounted on the side of the camera and driven by the frame speed shaft. Generator produces a 48-cycle sine wave signal. Signal may be resolved with a 48 cycle resolver or on a 60 cycle resolver if a 48-60 frequency converter is employed.

H8307 RYDER 16MM MITCHELL SYNC GENERATOR MODEL BM-4-60 is similar to above but produces a 60-cycle sine wave sync signal.

H8308 RYDER 16MM MAURER SYNC GENERA-TOR MODEL BM-5-48 is similar to above but designed for Maurer Model 05 or Model 150. Generator produces a 48-cycle sine wave signal. Signal may be resolved with a 48-cycle resolver or on a 60 cycle resolver if a 48-60 frequency converter is employed. H8309 RYDER 16MM SPRING WOUND BOLEX SYNC GENERATOR MODEL BM-7-48 is similar to above but designed to work with a spring-driven camera. Generator produces a 48-cycle sine wave signal. Signal may be resolved with a 48-cycle resolver or on a 60 cycle resolver if a 48-60 frequency converter is employed. Generator is designed to work with 24 frame per second sound speed. At 16 frames per second, a frequency doubler may be required. Measures 1" x 1" x 2" and weighs only 4 oz.

H8310 RYDER 16MM SPRING WOUND EAST-MAN CINE-SPECIAL SYNC GENERATOR MODEL BM-6-48 is similar to above.

H8311 RYDER 16MM SPRING WOUND BELL & HOWELL 70 SYNC GENERATOR MODEL BM-8-48 is similar to above.

H8312 RYDER 16MM SPRING WOUND BELL & HOWELL 240 SYNC GENERATOR MODEL BM-9-48 is similar to above.

NOTE: RYDER SYNC GENERATORS can be supplied for many 8mm and 16mm cameras on special order. Write for details stating make and model of camera. Delivery on Sync Generator installations is approximately one week after receipt of your motor or camera.

H8315 RYDER SINGLE PHASE SYNC TRANSFORMER MODEL F-2-60 is used to provide the synchronizing signal on all occasions where the camera is driven by a 60 cycle synchronous motor. They may be used when cameras are driven from power lines or from inverters. They are not used with a sync generator. The sync pulse recorded on the tape is derived from the same power source as that powering the camera motor.

H8316 RYDER THREE PHASE SYNC TRANS-FORMER MODEL F-3-60 is similar to above but is used with three phase power.



H8320 RYDER ECHELON SYNCHRONIZING MAGNETIC HEAD for any ½ inch tape recorder is designed to convert recorder for synchronous sound recording and for in-sync reproduction with projector or sprocket recorder. When mounted on tape recorder provides a synchronizing signal on edges of tape. During reproduction this signal is used as an index of synchronization between picture and sound, controlling the relative position of the tape with respect to the sprocket-driven film. Operates directly from any Ryder Sync Generator without need for auxiliary power, batteries or amplification. When camera is driven by sync motor the echelon head receives its synchronizing signal through a voltage reduction transformer from the same power source that drives the camera. The magnetic head records a fully modulated signal on the edges of the tape. Normally operated without bias. Bias can be used if desired. Recording head slits operate in phase and place an in-phase but slightly displaced "echelon" recording on the two edges of the tape. This double-head arrangement is an improvement over push-pull. Also eliminates the dirt pile-up problem prevalent on narrow heads. Provides a continuity of recording and reproduction over splices and horizontal tape defects. Head is normally mounted between capstan and take-up reel.



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MAGNA-TECH SOUND EQUIPMENT

MAGNA-TECH MAGNETIC REPRODUCERS SERIES 400 are engineered and designed for efficient operation in film studios requiring compact, rugged and versatile film recording equipment. The M.T.E. 400 series utilizes a basic film transport equipped for magnetic reproduction, and three attachments which extend the applications of the basic transport to provide optical reproduction, magnetic recording and optical recording. Type MD Basic Film Transport is a fully equipped magnetic re-recorder. Type MR Magnetic Recording Amplifier with recording head added to the basic film transport provides magnetic recording. Type OD Optical Dubber utilizes the basic transport as the film carrier and provides optical film playback. Type OR Optical Recorder safe light operated, utilizes the basic transport as the film carrier. Separate complete optical electronics cabinet provides remote operation. Perfected modular design enables attainment of maximum performance and flexibility with minimum maintenance and space requirements. Completely compatible meets SMPTE-ASA requirements, can be intergrated in any system. Five transports can be mounted in one 7 foot cabinet occupying less than $3\frac{1}{2}$ square feet of floor area. No mechanical interlock film transport has all features of single cabinet type equipment. Advance circuit designs, all transistorized eliminate maintenance, assures long-term stability. Film transport accommodates 2000 foot reels. Maximum economy through universal utilization of the basic film transport. Remote control operation for simultaneous or interlock start with other equipment. "Building Block" design provides complete equipment flexibility and economical expansion to suit the growing needs of the user. Records and reproduces both magnetic and optical sound tracks pro-viding unique versatility, as well as importequipment standardization. complete The basic film transport is a complete magnetic reproducer having its own synchronous torque motors, transistorized playback amplifier and motor controls for synchronous or interlock operation. It is mounted on a 14" x 24" main plate and has a depth of 11". Up to five of these reproducers in any combination of the various types, can be mounted in a standard 831/4" high, 24" panel width equipment cab-

H9001

H9001 16MM MAGNA-TECH MAGNETIC REPRO-DUCER MD-416 (36 FPM)

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H9002 $17\frac{1}{2}$ MM MAGNA-TECH MAGNETIC REPRODUCER MD-417 (90 FPM)

H9003 35MM MAGNA-TECH MAGNETIC REPRODUCER MD-435 (90 FPM)

H9004 17½ MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-447 (45 FPM)

H9005 17½ MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-427 (45/90 FPM)

MAGNA-TECH. MAGNETIC REPRODUCERS are also available in three models which are designed to transport two film sizes. The complete interchangeability feature of these models makes possible the change from one film size to the other by merely placing spacers on the film spindles to compensate for the difference in thickness of the film reels. Also, these models employ specially designed sprockets and rollers which make this flexibility possible without compromising the exacting requirement of excellent film motion. Two speed synchronous motors, plus Dual equalization networks in the playback and record amplifiers are provided. Also, complete Selsyn interlock facilities for two speed operation can be provided according to the requirements of two-speed operation.

H9010 16/35MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-436 (36/90 FPM)

H9011 17½/35MM MAGNA-TECH MAGNETIC REPRODUCER MD-437 (45/90 FPM)

H9012 $17\frac{1}{2}/35$ MM MAGNA-TECH MAGNETIC REPRODUCER MD-497 (90 FPM)

H9013 RACK CABINET (CS-400) with 280 MA

H9014 RACK CABINET (C-400) less power supply

H9015 POWER SUPPLY (PS-4-530) 28 volt DC, 530 MA

H9016 POWER SUPPLY (PS-4-280) 28 volt DC, 280 MA

H9017 POWER SUPPLY (PS-4-140) 28 voit DC, 140 MA

H9018 POWER SUPPLY (PS-4-70) 28 volt DC, 70 MA

H9019 SYNCHRONOUS MOTOR 220 volt 3 phase, 50 or 60 cycles (in lieu of single phase sync motor)

H9020 SYNCHRONOUS MOTOR (high speed feature) 3 speed, single phase (in lieu of 2 speed sync motor)

H9021 SYNCHRONOUS MOTOR (high speed feature) 3 speed, single phase (in lieu of single speed motor)

H9022 SELSYN MOTOR includes wiring and switching (factory installed)

H9023 INTERLOCK MOTOR single phase, 115 volt, 50 or 60 cycles (specify)

H9024 INTERLOCK MOTOR 3 phase, 220 volt, 50 or 60 cycle (specify)

H9025 COMPOSITE SYNCHRONOUS/INTER-LOCK MOTOR single phase (in lieu of synchronous motor)

H9026 COMPOSITE SYNCHRONOUS / INTER-LOCK MOTOR three phase, 220 volt, 50 or 60 cycles (in lieu of synchronous motor)

H9027 SELSYN DISTRIBUTOR (8B) 3 phase

H9028 SELSYN DISTRIBUTOR (8C) 3 phase with 1/4 HP sub-distributor for 2 speed operation

H9029 SELSYN REMOTE CONTROL UNIT single phase with slow start feature

H9030 SUB-DISTRIBUTOR for 2 speed film re-

H9031 16MM MAGNETIC RECORD AMPLIFIER (MR-416) and head

H9032 171/2MM MAGNETIC RECORD AMPLIFIER (MR-417) and head

H9033 35MM MAGNETIC RECORD AMPLIFIER (MR-435) and head

H9034 17½ MM MAGNETIC RECORD AMPLIFIER (MR-447) and head

H9035 16/35MM MAGNETIC RECORD AMPLIFIER (MR-436) and head

H9036 17½/35MM MAGNETIC RECORD AM-PLIFIER (MR-437) and head

H9037 17½MM MAGNETIC RECORD AMPLIFIER (MR-427) and head

H9040 16MM OPTICAL REPRODUCER ATTACHMENT (OD-416)

H9041 35MM OPTICAL REPRODUCER ATTACH-MENT (OD-435)

H9042 16MM OPTICAL RECORDING SYSTEM (OR-416) negative and positive track

H9043 35MM OPTICAL RECORDING SYSTEM (OR-435) negative and positive track

H9044 PHOTO CELL MONITOR AMPLIFIER (20B)

H9045 PORTABLE DARKROOM (PDR) for optical recorder

H9046 FOOTAGE COUNTER

MAGNA-TECH MAGNETIC AND OPTICAL FILM RECORDERS/REPRODUCERS SERIES 100 are designed for continuous heavy duty studio service. They feature a rugged, low flutter film transport, dependable amplifiers, efficient operation, and versatility. The film transport employs a double flywheel flutter suppressor system, single film sprocket with precision worm gear reducer, and heavy Mu-metal shield protecting the heads from magnetic fields. Sound drums, flutter suppressor rollers, and idler rollers are pre-cision machined from non-magnetic stainless steel. All ball bearings are selected precision stainless steel ball bearings. A dash-pot is provided to dampen the motion against disturbances such as are caused by film splices. Connected to the lower pad roller arm is a film loop setter, which auto-matically determines the correct length of the film loop when threading. The footage counter is equipped with a frame wheel. MAGNETIC HEADS are embedded into a solid block of naval bronze and hermetically sealed. The single track-type head is made in such a way that it can be used for 16, 17½, and 35MM. Multi-track heads are assembled in two halves and lapped. This assures perfect line-up of azimuth of all tracks. Heads can be furnished for up to 8 tracks. PLAYBACK AMPLIFIERS feature low noise, three equalization controls, level adjustment, and distortion free output up to plus 20 DBM. The three equalization controls (LF, mid-range, HF) permit adjustment of frequency response within $\frac{1}{2}$ DB or better in accordance with standard multi-frequency response test films. Head-wear can easily be corrected. The D. C. heater supply and ruggedized shock-mounted tubes

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count for the low noise level. RECORD AM-PLIFIERS are equipped with a VU meter for record level; playback level, and bias metering, separate meter amplifiers, record level and playback level attenuators, 1 DB per step, detented, bias filter, push-button re-cord control with pilot light and protection against accidental record. TORQUE MOTORS are heavy duty and capable of driving film reels up to 5000 feet. Due to the special design of these torque motors, the film whether it be wound on small or large reels, is handled very gently, without excessive tension which could cause bad splices to open up. The rotation of the feed spindle is reversible so that either A or B wound films can be put on a machine without prior rewinding. A positive cutoff switch is provided which disconnects the motors after the film is rewound. MOTOR CONTROLS are combined in one sub-assembly. They include forward and reverse switch, remote and interlock switch, torque motor switch, high speed wind and rewind switch, reel size switch, and cutoff switch. Also included is an inching knob which permits quick lineup of the start mark after threading. MOTOR DRIVES available are single or three phase synchronous motors, single or three phase selsyn interlock, and composite sync interlock motors, Film widths include 16, $17\frac{1}{2}$, 35, 55 and 70MM. Film speeds available are 36, 45, 135, $146\frac{1}{4}$ ft/min.

H9050 16MM MAGNA-TECH MAGNETIC REPRO-DUCER MD-116 (36 FPM)

H9051 17½ MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-117 (90 FPM)

H9052 35MM MAGNA-TECH MAGNETIC REPRO-DUCER MD-135 (90 FPM)

H9053 17½ MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-147 (45 FPM)

H9054 $17\frac{1}{2}MM$ MAGNA-TECH MAGNETIC REPRODUCER MD-127 (45/90 FPM)

H9055 16/35MM MAGNA-TECH MAGNETIC RE-PRODUCER MD-136 (36/90 FPM)

H9056 17½/35MM MAGNA-TECH MAGNETIC REPRODUCER MD-137 (45/90 FPM)

H9057 17½/35MM MAGNA-TECH MAGNETIC REPRODUCER MD-197 (90 FPM)

H9058 16MM MAGNA-TECH OPTICAL AND MAGNETIC REPRODUCER OMD-116

H9059 35MM MAGNA-TECH OPTICAL AND MAGNETIC REPRODUCER OMD-135

H9060 16/35MM MAGNA-TECH MAGNETIC AND 35MM OPTICAL REPRODUCER OMD-136

H9061 16MM MAGNA-TECH MAGNETIC RE-CORDER/REPRODUCER MR-116 (36 FPM)

H9062 17½MM MAGNA-TECH MAGNETIC RE-CORDER/REPRODUCER MR-117 (90 FPM)

H9063 35MM MAGNA-TECH MAGNETIC RE-CORDER/REPRODUCER MR-135 (90 FPM)

H9064 17½ MM MAGNA-TECH MAGNETIC RE-CORDER/REPRODUCER MR-147 (45 FPM)

 $\rm H9065 - 17\frac{1}{2}MM$ MAGNA-TECH MAGNETIC RECORDER/REPRODUCER MR-127 (45/90 FPM)

H9067 17½/35MM MAGNA-TECH MAGNETIC RECORDER/REPRODUCER MR-137 (45/90 FPM)

H9068 17½/35MM MAGNA-TECH MAGNETIC RECORDER/REPRODUCER MR-197 (90 FPM)



H9066

H9066 16/35MM MAGNA-TECH MAGNETIC RE-CORDER/REPRODUCER MR-136 (36/90 FPM)

H9069 16MM MAGNA-TECH OPTICAL AND MAGNETIC RECORDER/REPRODUCER, OMR-116 variable area, negative and direct positive track

H9070 35MM MAGNA-TECH OPTICAL AND MAGNETIC RECORDER/REPRODUCER OMR-135 variable area, negative and direct positive track

H9071 16/35MM MAGNA-TECH OPTICAL AND MAGNETIC RECORDER/REPRODUCER OMR-136 variable area, negative track

H9072 16MM MAGNA-TECH OPTICAL RE-CORDER/REPRODUCER OR-116 variable area. negative and direct positive track

H9073 35MM MAGNA-TECH OPTICAL RECORD-ER/REPRODUCER OR-135 variable area, negative and direct positive track

H9074 16/35MM MAGNA-TECH OPTICAL RE-CORDER/REPRODUCER OR-136 variable area, negative track

H9075 16MM OPTICAL REPRODUCER ATTACH-MENT OD-116

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35MM OPTICAL REPRODUCER ATTACH-

MENT OD-135

H9077 SELSYN MOTORS includes wiring and switching (factory installed)

H9078 INTERLOCK MOTOR single phase, 115 volt, 50 or 60 cycles (specify)

H9079 INTERLOCK MOTOR three phase, 220 volt, 50 or 60 cycle (specify)

H9080 COMPOSITE SYNCHRONOUS / INTER-LOCK MOTOR single phase, 220 volt, 50 or 60 cycles (in lieu of synchronous motor)

H9081 COMPOSITE SYNCHRONOUS / INTER-LOCK MOTOR three phase, 220 volt, 50 or 60 cycles (in lieu of synchronous motor) H9082 SELSYN DISTRIBUTOR 8B three phase

<code>H9083</code> SELSYN DISTRIBUTOR 8C three phase, with $^{1}\!\!/_{\!\!4}$ HP sub-distributor for two-speed operation

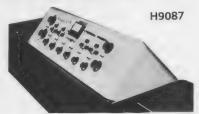
H9084 SELSYN REMOTE CONTROL UNIT TYPE 6, single phase, with slow start feature

H9085 SUB-DISTRIBUTOR for two speed film reproducers

MAGNA-TECH STUDIO CONSOLES



H9086 MAGNA-TECH MIXING CONSOLE TYPE 114 is a 4 position studio mixing console with each position equipped with an A-B key so that 8 inputs are available. Two positions have elaborate no-loss equalizers, incorporating LF, HF, and mid-range controls with IN-OUT keys for instantaneous switching. The high-pass filter provides cutoff frequencies of 80, 120 and cycles. The low-pass filter cuts off at 8000, 6000 or 5000 cycles. With filters "OUT," the response is uniform from 30 to 15,000 cycles. The output of the console is plus 4 DBM and can be metered on the 4 inch illuminated VU meter. A light dimmer allows to adjust the illumination to the desired brightness to avoid glare when projecting a picture. The monitor facility includes direct playback selector switch, monitor volume control, phone jack, and a monitor bridging am-plifier, 600 Ohms zero level output, speaker selector, and a two station talkback. Employing the monitor system for talkback eliminates the need for a separate intercom. A 1000 cycle os-cillator is provided, which allows to record a 100% signal for reference purposes in later transfer. It can also be used as a "Silent" sync slate. The "Verbal Slate" utilizes the built-in talk-back microphone for track identification pur poses. A two-way muting device cuts off the monitor when slating and also prevents the talkback from being recorded. The sync startstop switch controls the simultaneous start of the dubbers. The footage counter indicates 35MM (or 16MM) footage. It is illuminated and can be switched to the local power or to the sync-line. Up to 4 microphone preamplifiers can be incorporated on special order.



H9087 MAGNA-TECH MIXING CONSOLE TYPE 16 fulfills the needs for medium sized studios. It is both versatile and efficient, and incorporates many features usually not found in consoles of this price class. Each of the 6 positions has an A-B key, so that 12 inputs are available. Four positions are equipped with equalizers incorporating LF, HF, and mid-range controls. The LF and HF controls are calibrated precisely at 3 DB per step. They provide both attenuation and boost at 3000 or 5000 cycles, 3½ DB per



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step. The built-in high pass — low pass filter with In-Out key has 10 steps of low frequency cutoff, arranged between 70 and 7500 cycles, and 10 steps of high frequency cutoff, from 10,000 to 300 cycles. It can be used to eliminate hum and hiss, and also serves as a sound effects filter. The monitor system comprises a Direct-Playback selector, a monitor volume control, a bridging amplifier with a 600 Ohms zero level output, and a 6 station speaker selector. The monitor is also used for talkback utilizing the built-in microphone and a 6 station talkback selector. A "Split" feature allows to divert one or two positions from the main channel so that they can be fed to a compressor. Other features are plug-in amplifiers, 1000 cycle oscillator, verbal track slate, cue light, illuminated footage counter, and remote control. The remote controls provide recorder run-stop, interlock, sync-stopstart, room light, and silence light. The 6 station speaker and talkback system provides communication to studio, control, narration, equipment, projection points, and a spare location. A VU meter attenuator compensates for mechanical inertia of the meter. It has six steps. Each adjusts the meter for 100% deflection at the levels of plus 4, plus 6, plus 8, plus 10, plus 12, and plus 14 DBM. A special gain control provides for adjusting the output level of a compressor or echo chamber to the input level of the console's built-in combining network input and the console output. The Type 16 is furnished in a cast aluminum turret for desk or table mounting.



H9089 MAGNA-TECH CONSOLE CONTROL PANEL TYPE EF monitor system comprises monitor selectors, bridging coil, monitor volume control, monitor compensator, power amplifier, and speaker selector. The monitor selectors are designed to equal the flexibility of the other elements of this console. They consist of two identical push-button assemblies and one key switch. The push-button have 8 positions each, and are used to pre-select the following: A, B, C, BC, ABC, Playback 1, 2, 3. The key switch changes from one of the two pre-selected monitor inputs to the other rapidly. The monitor volume control is a 600 Ohms attenuator with detended 2DB steps. The monitor compensator is equipped with an IN-OUT switch and follows the recommended "Academy" curve. The monitor amplifier provides 40 watts of undistorted power. This is adequate to drive two or three speakers simultaneously if required. The speaker selector the speakers. 5 push-buttons are provided.

H9088 MAGNA-TECH MIXING CONSOLE TYPE EF is designed for single channel, "split" channel, and multi-channel recording. It is equipped with 8 mixers with vernier controls, 3 master attenuators, 8 equalizers, 1 compressor with gang ceiling control, 3 VU meters, each with selector and attenuator, 2 hybrid networks, 5 line amplifiers, 2 sets of HP/LP filters, effect filter set, 8 channel selectors, 2 transfer keys, 2 cue lights, a talkback selector, 2 monitor selectors, speaker selector, slate system, oscillator, monitor amplifier, power supply and patch panel.

H9090 MAGNA-TECH OPTIONAL MICROPHONE PREAMPLIFIERS TYPE 114-16 for Type 114 or 16 Mixing Consoles.

H9091 MAGNA-TECH MIXING CONSOLE TYPE MR is similar to Type 114 but has 12 positions

H9092 MAGNA-TECH MIXING CONSOLE TYPE LC is similar to Type 114 but has 12 positions



MAGNA-TECH COMPONENTS

H9106 MAGNA-TECH PLAYBACK SYNCHRO-NIZER TYPE 92B is for synchronization of ½" tape in playback with sprocket driven film. This unit is essentially a servo-mechanism which controls the tape speed of a tape recorder, so that the tape is reproduced at precisely the same speed as it was recorded. Two inputs are provided, one for 14 KC carrier sync signal and one for a 60 cycle sync head. 14 KC rejection filter built-in. Large range of speed correction. Oscilloscope employing circular sweep. VU meter and attenuator for sync level control. Rapid rate of correction with no overshoot or introduction of wow or flutter. Memory device maintains speed even if sync signal is lost. Relay automatically prevents synchronizer hunting in fast forward or rewind tape mode. Framing knob permits tape to be advanced or retarded by a definite number of frames. Completely silent in operation. Electronic circuit breaker protects against overloads. Small size and weight, 38 lbs, 12½" rack panel mount. Easy installation with most popular tape recorders. All solid state construction eliminates maintenance.



H9107

MAGNA-TECH NOISE SUPPRESSOR-AM-PLIFIER TYPE 34B is used to improve the signal to noise ratio in sound recordings, and live or broadcast sound transmissions. It is also used to remove undesirable reverberation and sibilance. Amplification factor is reduced in pauses between modulation where noise becomes apparent. The function is based on five attenuation stages which can be inserted singly, or together, causing the noise to be reduced by an equivalent amount. When modulation is present, the attenuation of these stages is reduced to zero, extremely rapidly, so that intelligence passes through without being attenuated. The time constants that determine the attack and recovery of the control circuits are carefully selected to avoid speech clip ping and "breathing" effects. This method of eliminating undesired sounds, or noise, is not discriminatory as to frequency, or specific types of noises. It is effective regardless whether the undesired sound be in the low, mid, or high frequency spectrum. Completely solid state device designed for maximum flexibility and ease of operation. It contains five stages of noise suppression. Their noise thresholds are staggered so that the removal of noise is achieved gradually. As sound passes through the first stages, its signal to noise ratio is improved by 5 DB. With the signal thus improved, it can now pass through the second stage permitting a further improvement of 5 DB. This arrangement makes it possible to substantially improve the signal to noise ratio of a sound recording having excessively high background noise, with only one application of Noise Suppressor. Also, since noise suppression can be applied in the small increments of 5 DB, a sound recording having an acceptable signal to noise ratio can be improved still further by applying only one stage of noise suppression. No detrimental effect on the sound is introduced by the noise suppressor. An extremely fast attack time of less than one millisecond combined with its inherent solid state stability permits noise suppression to be applied to any sound recording.

see pages 35 - 40 for the LARGEST, MOST COMPLETE LENS CHART EVER COMPILED

OVER 7,000 COMBINATIONS



H9108 MAGNA-TECH SOLID-STATE COMPRES-SOR-AMPLIFIER TYPE 31 transcends all previous refinements by removing the problem of balance and balance stability. It employs a solid-state variable gain stage. Compressor-Amplifier has been designed for use in motion picture mixing consoles or stationary installations. The design permits an input and output attenuator or "ganged" Ceiling Control, meter, and power supply of an existing console to be utilized for operation and control of the compressor. It consists of a solid-state variable gain device, an amplifier to make up for the losses of the Ceiling Control and other components, and a control channel amplifier incorporating variable de-essing.



H9109 MAGNA-TECH COMPRESSOR-AMPLIFIER TYPE 32 is a high quality compressor amplifier featuring a very short attack time of one millisecond, "thump" free operation, de-essing, three pre-selected compression ratios, VU and compression meter, and a "ceiling" control. The balance of this compressor reaches equilibrium after 15 minutes and remains stable over long period of time. Balancing is made easy through test button and panel control. One DB per step attenuators are provided which allow to adapt input and output levels to almost any requirements. The output attenuators also serves as a ceiling control. The built-in meter is used as volume indicator or as compression meter, indicat-

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ing actual DB of compression. The three compression ratios selected by a switch are 20:10, 30:15, and 30:20. Other ratios such as 20:4 are also possible. The compressor is self-powered. Input and Output impedance are 600 Ohms, balanced.



H9110

H9110 MAGNA-TECH EQUALIZER TYPE 27 This electronic equalizer is a NO LOSS equalizer designed to alter the frequency characteristics of an audio signal over a wide range. It can be used to restore losses in sound reproducers and transmission lines, to compensate for inadequate frequency response of microphones and speakers or to improve room acoustics Other applications are as recording equalizer (film loss equalizer) or special effects equalizer. This instrument consists of a low-frequency equalizer, a high-frequency equalizer, and a midrange equalizer. Each of these equalizers is operated by a separate control. LF and HF equalizers allow to boost or to attenuate in small increments of 2DB to a maximum of 16 DB. These controls are calibrated at 100 cycles and 10,000 cycles respectively. The mid-range boost will give additional amplification in the mid-range, centered at the frequencies of 3000 cycles or. 5000 cycles; depending upon counterclockwise or clockwise rotation of the control. Increments per step of the mid-range boost are also 2 DB with a maximum of 16 DB.

H9111 MAGNA-TECH EQUALIZER TYPE 29 is designed for use in mixing consoles. Its small size, $7" \times 2\frac{1}{8}" \times 8"$, permits installation in line with the mixer attenuators.

H9112 MAGNA-TECH DIP FILTER TYPE 37 is used to eliminate hum and its harmonics without affecting the program quality.

H9113 MAGNA-TECH HIGH PASS-LOW PASS FILTER TYPE 38 for use in film recording where a high attenuation of specific frequencies is required.

H9114 MAGNA-TECH PRINT-THROUGH ERASER TYPE 85 is designed to erase print through on 1/4" tape.

H9115 MAGNA-TECH UNIVERSAL AMPLIFIER TYPE 61 is designed for use as a line amplifier, booster amplifier, or microphone preamplifier. The versatility of application is provided for in its features of high signal to noise ratio, low distortion at high output levels, and adjustable gain.

H9116 MAGNA-TECH AMPLIFIER TYPE 20 is designed for use as a preamplifier for optical, and/or magnetic sound reproduction from projectors, or other sound reproducers.

Select YOUR
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HEADS

DOLLIES

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from listings on pages 24 through 31

RANGERTONE SYNC KITS

RANGERTONE SYNC KITS can be installed on any professional 1/4 inch magnetic tape recorder to provide a constant, inaudible 60 cycle signal on the tape. signal does not affect the audio quality in any way. Signal serves as an automatic speed regulator during playback, assuring exact lip-sync register between separate picture and sound. Recording sync and audio signals simultaneously on the same tape eliminates all problems concerned with tape stretch, shrinkage, voltage fluctuation and frictional changes. If any of these factors affect tape speed both the sync signal and audio signal would be equally affected. On playback, or re-record-ing to magnetic film, as the sync signal is automatically brought into step, virtually recreating the original recording conditions, the audio signal is also brought into perfect lip-sync along with the picture. Rangertone sync signal may be put on previously recorded tapes to aid in post synchronization. Sound recorded with the sync signal may be resolved by sound laboratories and transferred to 16mm or 35mm magnetic film for side-by-side double-system picture and sound editing. Resolvers are available for producers desiring to do their own trans-ferring. Please write for details and state make and model of recorder.

RANGERTONE SYNCHRONIZING KITS FOR PROFESSIONAL RECORDERS

H7320 RANGERTONE MODEL S-1072 SYNCHRO-NOUS RECORDER UNIT for Ampex 601 and Magnecord PT6

H7321 RANGERTONE MODEL S-1067 SYNCHRO-NOUS RECORDER UNIT for all other professional recorders (please state make and model)

H7322 RANGERTONE MODEL S-1066 SYNCHRONOUS RECORD & PLAYBACK UNIT for all recorders. This combined unit makes it possible to do Sync Recording. (For sync Playback it is necessary to add Model S-1009 and Model S-1004 listed below.)



H7323

H7323 RANGERTONE MODEL S-1009 SYNCHRONIZER & MODEL S-1004 POWER DRIVE effect Sync Playback with the above. The Synchronizer measures the frequency of the Sync Recorded Pulse and automatically determines from this what the tape speed should be to insure Sync Sound. It makes this adjustment by correcting the new power frequency it generates, which when amplified in Model S-1004, will drive the capstan motor correctly.

RANGERTONE ACCESSORIES

H7325 RANGERTONE MODEL Y-1 SYNCHROTAC GENERATOR is mounted on camera to provide sync signal on battery drive

H7330 RANGERTONE MODEL S-1035 DEMOD-ULATOR (for Fairchild tapes)

RANGERTONE PROJECTAR

H7310 RANGERTONE PROJECTAR is a simple, inexpensive method for tying 16mm motion pictures with synchronized tape. Projector and inch tape recorder are kept strictly in step by the sync signal registered on the tape at time of shooting. Projectar consists of three units: (1) a synchronizing amplifier (providing synchronous 16 cycle or 24 cycle pulses to run projector at silent or sound speed tied in with the 60 cycle power used to drive the camera at the time of shooting); (2) a sync head (placed on tape recorder which records the sync pulse down the center of the tape); (3) a Synchrotac (locks the projector to the synchronizing control of the amplifier). A synchronous motor is not required on the projector. Projectar may be used to add sound to silent motion pictures; to project sync-sound motion pictures recorded with a sync pulse equipped camera and recorder; to view "rushes". Sync sound projection is accomplished by a punch mark at start of the film and painting a silver start mark on the back of the tape. When silver coating runs over a contact on the tape recorder a relay in the projector is closed and the projector continues to run. The Synchrotac on the projector can be rotated by a crank. Number of turns, forward or backward, required to keep picture in sync are counted and picture or tape is shortened by corresponding number of frames. Sync sound pictures may be filmed with a 60 cycle synchronous motor or with a Synchrotac mounted on camera if battery powered DC motor is used. Sync is assured because pulses supplied from camera generator will register per-fectly as control track on the sound tape. Please write for complete technical details on Projectar, stating make, model and serial number of camera and projector you wish equipped.

RANGERTONE TAPE RECORDERS



H7302 RANGERTONE MODEL DC-5 is a synchronous ½ inch tape recorder for studio use. 4800 ft. reels will record one hour at 15 inches per second, two hours at 7½ inches per second. Vacuum tube equipped throughout. Signal to noise, 60 db against a one per cent harmonic distortion level. Frequency response, flat, plus or minus 2 db from 50 cycles to 15,000 cycles at 15 inches per second and to 12,000 cycles at 7½ inches per second and to 12,000 cycles at 7½ inches per second. Six hundred ohm microphone input impedance. A separate microphone amplifier available with three microphone inputs, each separately controlled with their own amplification and combined mixer control. Earphone and loudspeaker monitoring. Two watts output available. Input and output levels: minus 10 dbm input at 600 ohms, plus 8 dbm output at 600 ohms. (Exclusive of monitoring.) Three 110 volt AC, 60 cycle, motors provided. Holdback and take-up motors equipped with either mechanical or electrical brakes. Tape transport comprises a tight loop over a magnetically coupled oversized flywheel. Record and reproduce heads



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mounted in close proximity to flywheel to reduce record-reproduce flutter to minimum of less than .05%. Synchronous drive motor coupled to tape capstan by conical drive mechanism. Knob and pointer provide precise tape speed adjustment with range of ±0.5% to compensate for tapes recorded off speed. Second record head provided to record sync control signal in center of 1/4 inch tape. Signal is oriented normal to audio sound so it does not affect quality of reproduced sound. Separate reproduce head also provided to reproduce sync control signal. These two heads have gap angle inclined few degrees to compensate for tape weave. Synchronizer Type S-1008 amplifies sync control signal reproduced and compares it with 60 cycle power driving the projector or sound recorder. Correction is supplied to miniature motor which is coupled through a gear train to the conical tape drive mechanism. Tape speed is automatically corrected until it is in exact sync with projector or recorder. Feed back circuit retards speed correction so that it is inaudible. Frame indicator shows accumulated error in sync and can be used to correct sound originally recorded out of sync. Small oscilloscope provided to monitor performance.

H7305 RANGERTONE RANGERETTE MODEL A-3 is a synchronous light-weight ½ inch tape recorder which may be operated from 115 volt AC, 60 cycle current or from a 12 volt battery with an inverter. Equipped with Ranger Sync pulse head. Two speeds: 7½ inches or 15 inches per second. Master control switch governs forward or reverse. Pushbutton recording switch. Db meter on front of panel indicates effective recording intensity. Volume control. Top plate has all tape movement units and a synchronous motor to drive tape. Light-weight hearing-aid type receiver may be plugged in for monitoring. Permanent magnet erase head. Accepts 7 inch reels. 75 watt 12 volt DC input vibrator. Frequency response 50 to 15,000 cps.

H1603 STANCIL-HOFFMAN MINITAPE NETIC 1/4 INCH TAPE RECORDER/REPRODUCER MODEL M-9 is a completely transistorized, battery operated, portable recorder in a watertight aluminum case. Will record in any position and while in motion. Recorder may be turned on or off while being carried with case closed. Thumb operates push button control switch located near handle. A single bar type mode control knob puts recorder in play, record, rewind, or off position with a safety interlock to prevent accidental recording. Recorder in powered by a self-contained, hermetically sealed nickel cadmium storage battery which supplies power for both the amplifiers and drive motor for over four hours of continuous operation without recharging. Battery may be charged from an accessory automatic charger or a 12 volt auto cigarette lighter attachment. Mechanical section will withstand shock, vibration and field abuse and has an extremely low flutter rate. A centrifugal governor controls speed by varying the field current. Mechanical brakes are set in Off position to prevent tape spillage while unit is in transit. Precision ball bearings are used in all critical moving parts. Uniform recording quality is assured by a unique automatic electronic gain control. Recording level will barely change whether speaking at ten feet or a few inches from the microphone. Input may be either a low level microphone or a high level bridging circuit for telephone or line pick-up. Input impedance is 50 ohms. Power amplifiers or speakers are not built-in to keep battery drain and weight to a minimum. Headphones and small amplifier/speaker, which also provides remote control, are available as accessories. Separate playback head and amplifier permits "off the tape" monitoring while recording. Fast loading is accomplished by slot threading and simple, positive reel locks. Five inch, 600 ft., reels of tape furnish thirty minutes recording at $7\frac{1}{2}$ inches per second, one hour with 1200 ft., double play Mylar tape. (Recorder may be specially ordered with $3\frac{3}{4}$ or $1\frac{7}{8}$ inches per second tape speed.) Full track width normally supplied. Half track or stereo may be ordered. 600 ft. reel may be rewound in less than one minute. Frequency response is ± 3 db 50 cycles to 15,000 cycles. NARTB equalization. Size: $9^{\prime\prime}$ x $12^{\prime\prime}$ x $5^{\prime\prime}$. Weight: 13 pounds.

NOTE: May be equipped with Rangertone Sync head for recording a sync pulse to insure synchronization between sound and picture.

H1604 STANCIL-HOFFMAN MINITAPE RECORD-ER MODEL M-9/SYNC is similar to above but is equipped with two track recording for sync sound motion picture filming.

REPAIR SERVICE

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MINITAPE ACCESSORIES FOR MOTION PICTURE SOUND RECORDING

H1605 Mixer, two channel, Model AM9

H1606 Inverter Power Supply, 100 watt, for transfer of sync recordings to film equipment, Model VP1

H1607 Volume Indicator and meter amplifier installation, Model VI9

STANDARD MINITAPE ACCESSORIES

H1608 Microphone, 60 ohm, dynamic wide range with 6 foot cord and connector

H1609 Battery Charger, automatic, for 117 volt AC, 50/60 cycle, Model BC9

H1610 Battery Charger, automatic, for 230/117 volt AC, 50/60 cycle, Model BC9C

H1611 Remote Control with loud speaker and power amplifier, Model AW9

H1612 Canvas Carrying Case, water repellent, with 2 pockets and shoulder strap, Model C9

H1613 Miniature Earplug Headphones, on stethoscope band, Model EA9

H1614 Cigarette Lighter attachment for Battery Charger, Model BC11



H7831

H7831 SONY MODEL 777-S PROFESSIONAL STERECORDER is an all-transistorized 2 speed (7½ and 3¾ ips) 2 and 4 track professional portable stereophonic and monophonic recorder. Sony Electro Bi-Lateral heads provide equivalent of 6 separate stereo heads by fabricating both the ½ track and ¼ track laminations and gaps within one head unit. This feature is incorporated in each of the 3 head units (erase, record and play). Provides complete 2 and 4 track stereo and monophonic operation without track width or alignment compromise. Other features: 3 motors including hysteresis-synchronous drive motor, full solenoid push button operation, remote control for all modes and modular plugin military type transistorized electronic circuitry. Furnished complete with portable case and remote control unit. Transistorized Stereo 6

H7837 SONY MODEL TSM-2 TRANSISTORIZED STEREOPHONIC MIXER is an all transistorized 6 position, 2 channel stereo mixer for Model 777-S. Contains 6 matching transformers for low level microphone inputs and recorder outputs. Input and output facilities provide Cannon receptacles for 4 microphones, 2 hi-level inputs and 2 outputs. Special switch for mixing one microphone into both channels.

H7838 SONY MODEL AS-777 TRANSISTORIZED AMPLIFIER-SPEAKER SYSTEM is a 10 watt all-transistorized power amplifier and an extended range 8 inch high fidelity speaker with infinite baffle. The all-transistorized circuit of the built-in amplifier features separate bass, treble and level controls plus additional hi-level input and external speaker output.

H7832 SONY MODEL 777-M PROFESSIONAL TAPECORDER is a monophonic version of Model 777-S. Available with either 3 full track or three ½ track heads. Self-contained with built-in transistorized 10 watt amplifier and speaker. Mechanism and solenoid operation are identical to Model 777-S. Complete with portable case and remote control unit.

H7836 SONY EM-1 NEWSCASTER is a springmotor powered tape recorder designed for rugged and dependable operation in remote locations where electrical power is not available. The governor-controlled spring motor mechanism assures constant speed and precise timing accuracy. Transport operates for 5 minutes on a single winding. Motor may be rewound during operation without affecting tape speed or timing accuracy. Transistorized circuit is powered by 6 penlight batteries. Utilizing full track at 7½ ips speed, the EM-1 meets all NARTB specifications. Complete with microphone and accessories.

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MICROPHONES

H8173 NEUMANN KM-56 MINIATURE CONDENSER MICROPHONE is self-contained, incorporating electronic switching to omni-directional, bi-directional and cardioid. High resistance to temperature and humidity effects. Excessive heat from set lights will not affect performance. Matching amplifier, tube, transformer and all components located in microphone itself, permitting its location as much as 300 feet from its power supply. No hum or RF interference. Only 6 inches long x ½ inch diameter. Supplied with power supply, cables and shock mounting for hanging from boom. Specify 50 or 250 ohms output impedance.

H8174 NEUMANN U-47 STUDIO STANDARD CONDENSER MICROPHONE is electronically switchable from omni-directional to cardioid pattern. Features high output level and extremely low inherent noise level. Double-condenser capsule with gold sputtered diaphragm. Shockmounted. Entire capsule shielded by triple mesh cover. Matching amplifier, output transformer and all components located in microphone, permitting virtually unlimited distance between microphone and power supply. Mike cable not susceptible to noise or RF interference. Impedance may be switched from 50 to 250 ohms. 8 inches long x 2½ inches diameter. Supplied with power supply, cables and suspension for hanging from boom.

H8175 NEUMANN U-48 STUDIO STANDARD CONDENSER MICROPHONE is similar to above but provides either a cardioid or bi-directional (figure 8) characteristic.

H8161 ELECTRO-VOICE MICROPHONE MODEL 644 is ideal when the microphone can not be located close to performer and feedback is a problem. High directivity. Coverage angle of only 90 degrees.

H8162 ELECTRO-VOICE MICROPHONE MODEL 606 is a differential noise-canceling microphone for reduction of interfering noise wherever level is unusually high.

H8163 ELECTRO-VOICE MICROPHONE MODEL 666 is a variable D cardioid microphone for stand use. Reduces pickup of sound from rear. Ideal for recording in "boomy" or extremely "live" surroundings.

H8164 ELECTRO-VOICE LAVALIER MICRO-PHONE MODEL 649 is designed for hanging around neck. Excellent where the performer must move about with hands free.

H8001 AMERICAN MICROPHONE COMPANY Model D-44 is a dynamic omnidirectional instrument which provides a frequency response from 50 to 15,000 cycles. Output level is minus 60db, 50 ohms impedance. Microphone terminates in male part of connector. Female connector has ring-lock for easy disconnect. Coupling has $\frac{1}{8}$ -27 internal thread for installation on "fishpole" or mike boom. Weighs only 7 oz.

H8007 Model D-44 Wind Screen

H8009 Model D-44 Suspension Eye

H8003 AMERICAN MICROPHONE COMPANY Model D-33 is a dynamic omnidirectional microphone with low and medium variable impedance. Response is essentially flat from 35 to 15,000 cycles. Slide-lock permits easy removal from stand for hand or suspension use. Impedance is easily changed by adjusting linkage bars under name-plate.

NOTE: Other models of AMERICAN MICROPHONE COMPANY microphones are available. Write for complete listing.

H8004 AKG MICROPHONE Model D-25 is a moving coil cardioid microphone designed for use on a boom or fishpole. Has rubber shock-proof swivel frame suspension. Features a pull-and turn switch which drops response at 50 cycles by 7 or 12 db respectively, in two steps. Latter position is intended only for pickup of speech at very short range. Connector for attaching microphone to boom has removable threaded insert, offering choice of $\frac{3}{6}$, $\frac{1}{2}$ or $\frac{5}{6}$ -27 thread. A 10 ft. twin shielded cable is firmly connected to microphone and fitted with a 3-pole plug-and-socket connector.

H8002 AKG MICROPHONE Model C-12 is a polyshock-resistant moving coil microphone ideal for boom mounting because of its special replaceable rubber cord suspension. Features remote controlled variable pattern. Selector unit provides two cardioid, one spherical, one figure 8 and 4 intermediate patterns together with bass cut-off switch. All patterns may be brought into operation during pick-up without clicking or other disturbing noises.

H8005 AKG MICROPHONE Model C-12 is a polydirectional condenser microphone featuring a box for remote control of directional characteristics. Provides omni-directional, cardioid, figure-8 and 6 intermediary patterns. Frequency response of this unit is extended to the limits of audibility. Microphone can be adjusted to conform with reverberation of individual studio. The unit consists of a cylindrical metal shell containing a condenser head, a 12AY7 tube input transformer. It is connected to its power supply by a 65 ft. multi-conductor cable. Another multi-conductor cable leads the power supply to the switch box.

H8006 AKG MICROPHONE Model 60K is a dynamic microphone of the pressure receiver type based upon the principle of a moving coil. It is suitable for all kinds of an open air and inside pick-up, and for transmission of large sound bodies and for close-up work. It is practically omnidirectional since its diameter is only 1½ inches. Extremely safe in operation, it requires no preamplifier or local batteries. It is virtually windand shock-proof.



H7834 SONY C-37A CONDENSER MICROPHONE is designed for professional recording and broadcast applications. Directional characteristics are variable between unidirectional cardioid and omnidirectional. Frequency response is \pm 2 db 20 to 18,000 cycles. Finished in grey with brushed chrome and complete with Model CP-2 Power Supply, 30 feet of connecting cable and carrying case.

H7833 SONY C-17B CONDENSER MICROPHONE is miniature size (3¾ inches.long, 5½ inch dlameter) with frequency response identical to the SONY C-37A. It possesses an exceptional unidirectional cardiod pattern that is ideal for motion picture and television use. Complete with power supply, connecting cable and carrying case.



H7835 SONY CR-4 WIRELESS (RADIO) MICRO-PHONE is designed to operate on the FCC license free FM band of 27.12 mc. Features professional performance in all applications where wireless communication is desired. The complete system consists of a small lightweight transistorized FM Transmitter, a Lavalier Dynamic Microphone, an 8 tube FM Receiver, and a Portable Carrying Case. The performance and stability of this unit marks an outstanding achievement in electronic engineering and design.

H8008 FME DUAL-FM WIRELESS MICROPHONE consists of both transmitter and receiver. Transmitter is small and lightweight to fit in a shirt pocket, purse or be secured inside clothing. Microphone component is extremely sensitive. No connecting cords to receiver. FME receiver is tuned to frequency of FM-modulated microphone/transmitter. Both receiver and transmitter offer drift-free, crystal controlled frequency stability. Superior dual-FM feature assures interference-free, high fidelity quality of transmitted sound. Eliminates mike boom problems. Actors may wear mike and transmit sound to recorder without trailing wires.

HEADPHONES

H4067 AKG DYNAMIC HEADPHONES Model K-120 designed to provide exceptionally fine sound quality. Ideally suited for monitoring motion picture and television sound. Earshell is fabricated of black bakelite and case of natural aluminum with chrome trim. Headphone is of nylon covered spring steel. Rubber connecting cable and plugs are provided. Frequency range is unusually wide and affords a uniformly flat response.

H8170 BEYER DYNAMIC PEAK PERFORMANCE HEADSET DT 48 is free of distortion even at high loudness levels. Frequency response encompasses range of hearing from 20 to 15,000 cycles, free of resonant peaks and transient distortion. Impedance: 5 ohms each side, with series connection, 10 ohms. Can be bridged across 600 ohms at line level with transformer. Ear cushions available as accessory.

H8171 BEYER DYNAMIC TWIN-SET HEAD-PHONES DT 508 are equipped with interchangeable and washable ear cushions. Can be arranged to be worn under the chin, or over the head, as well as in back of the neck. Light weight construction. Frequency response 70 to 12,000 cycles.

H8172 KOSS HEADPHONES MODEL SP-3 may be used for monaural or stereo systems. Frequency response from 30 to 15,000 cycles. Reproduces sound a full octave below any other earphone. Impedance: 4 ohms. Soft sponge ear and headpiece provide light-weight and shut out 95% of outside noises.



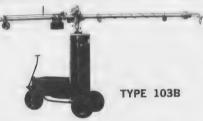
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MICROPHONE BOOMS



J4044 NATIONAL CINE EQUIPMENT PORTABLE MICROPHONE BOOM is specially designed for studio or location work. Lightweight, collapsible, sturdily constructed of aluminum tubing with bronze castings. Telescopes approximately 7 to 17 feet. Balance weight at rear of boom adjustable for extension. Operator can push boom and operate microphone swivel at same time regardless of extension or angle. Oversized friction boom clutch provides tension on boom arm for horizontal stability and safety. 1/4 inch threaded microphone mounting rod is provided on front end of boom for mounting any type of microphone hanger. Boom dolly is two-section telescoping unit with collapsible legs and ball bearing casters with foot locks.



MOLE-RICHARDSON TYPE 103B MICROPHONE BOOM mounted on Type 126 Perambulator features automatic counter-balancing microphone travel through 320° elevation and depression on pendulum. Completely silent operation. Oilless bearings, rubber rollers on moving parts. Adjustable platform for operator. Steering wheels swivel 120°. Rear wheels adjustable from 29 inches to 50 inches. Overall length of boom is 13 ft. 4 inches. Boom extends from 7 ft. 8 in. to 17 ft. 4.00 x 8 pneumatic tires. Perambulator features steel frame and brass castings. Microphone boom constructed of aluminum tubing and castings. Baked maroon enamel finish.

M-R MICROPHONE HANGERS

MOLE-RICHARDSON MICROPHONE HANGERS are constructed of non-magnetic and non-corrosive materials. All metal to metal connections eliminated to provide quiet operation. Hangers are available in both Clamp and Stud types. The following are a partial list of hangers for most popular microphones. Please inquire about hangers for other microphones.

CLAMP TYPES

TYPE H-1: 1% to 2% inches dia. for American DR330, RCA88A, Electrovoice 600, 635, or 666, Western Electric or Altec 633A.

TYPE H-2: $2\frac{1}{2}$ to $2\frac{3}{4}$ inches dia. for RCA77D or 10001, Western Electric or Altec 630A.

TYPE H-3: 3 to $3\frac{1}{2}$ inches dia. for Western Electric or Altec 618A.

TYPE H-5: For Altec 670A.

TYPE H-6: For Altec 671A.

TYPE H-7: 1½ to 1-11/16 inches dia. for Altec

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TYPE H-8: For Altec 680A.

STUD TYPE

TYPE H-4: For Altec 639A and B, Shure Cardioid, Western Electric RA1142.

ATLAS PORTO-BOOM is a light-weight, easily portable, collapsible, microphone boom designed for studio as well as location filming. Boom extends from 7 ft. to 18 ft. and can be raised from 51/4 ft. to 9 ft. Weight of stand (including 22 pound removable counter-weight) is only 56 pounds. Can be assembled or knocked down in a few minutes and transported in car or station wagon. Telescopic upright is securely locked in position with large brake shoe type clutch assembly. Piston type air check mechanism prevents accidental or sudden collapse of upright. Adjustable pneumatic orifice valve in base allows rapid height adjustment but prevents sudden downward motion. Two position dual control microphone "gunning device" allows rotating microphone through 360° arc. Horizontal "pan-handle" on upright allows boom operator positive means of moving base on large 4 inch ball bearing, rubber castered wheels. Boom angle limit adjustment prevents accidently lower-ing microphone into camera view. Dampened universal joint on end of boom automatically positions microphone regardless of boom angle. Microphone is securely supported by an adjustable rubber-loaded vibration-absorbing cage. Microphones are easily hung or removed. Con-structed of finest quality machined aluminum alloy castings electro-chemically processed in "alumilite" to prevent discoloration. Adjustment knobs are made of impact-resistant phenolic. Absolutely silent in operation.



J4035 FISHER MICROPHONE BOOM MODEL 2-100 is designed for studio and location sound requirements. Light-weight construction of aluminum. Maximum extension of boom is 600 feet. Microphones from a few ounces to $5\frac{1}{2}$ pounds can be rotated through 360° . Air cushion in column for safety. Mounted on three wheel carriage with axle width adjustable from 29 inches to 61 inches for maneuverability. $3.5~\rm x$ 6 pneumatic tires. Maximum extended height is 9 feet. Platform height is adjustable. Weight: 198 pounds.

J4036 FISHER MICROPHONE BOOM WITH HYDRAULIC CRAB PERAMBULATOR MODEL 5-100 is similar to above except for hydraulically operated platform and boom lift. Three wheel carriage with 4.00 x 8 tires allows for quick and quiet movement. Unit can be used for straight tracking, angular crabbing or circular steering. Hydraulically operated vertical lift is controlled by operator from platform. Platform height: 28 inches minimum and 57 inches maximum. Boom arm height is 74 inches minimum and 108 inches maximum. Individual wheel locks. Weight: 395 pounds.

MAGNETIC BULK ERASERS (DEGAUSSERS)

H6095 MAGNASYNC A-937 SEMI-AUTOMATIC BULK ERASER employs a motor driven turntable to insure complete erasure and eliminate the possibility of noise patterns which can be generated by irregular rotational motion.

H6097 MAGNASYNC G-936 CONVENTIONAL BULK ERASER is an economical degausser capable of effecting complete erasure of ¼ inch tape, 16mm, 17½mm and 35mm magnetic film.

D9092 AMPLIFIER CORP. OF AMERICA MAGNERASER assures 100% magnetic tape erasure on the reel without rewinding. This portable, fast, easily operated demagnetizer lowers noise level of unused tapes and assures absolute erasure of any recorded reel of tape. Operates on any alternating (50 or 60 cycle) current with any size reel whether plastic or metal. May also be used for demagnetizing record-playback and erase heads, thereby reducing distortion and tape background noises. Momentary-control pushbutton safety On-Off switch prevents AC current being applied when not in use. Furnished with 8 ft. line cord with molded plug.

D9090 CINEMA ENGINEERING CO. DEGAUSSER TYPE 9205 erases program and residual noise from magnetic tape or film. Brute-force-type demagnetizer has two powerful fields. Will demagnetize 5400 ft. reels of ¼ inch tape or 1000 ft. rolls of 35mm film. Equipped with heavy-duty double-pole switch, double-fused with dual pilot lights, black phenolic top with locating spindle, heavy steel case with gray baked enamel finish and rubber feet. 115 volt AC, 60 cycle, operation.

D9091 CINEMA ENGINEERING CO. MAGNETIC ERASING PENCIL TYPE 8905 may be used for erasing limited small areas of magnetic tape or film. Permits removing a syllable or part of a word. Operates on 115 volt AC, 60 cycle, current. Black phenolic construction. Active area at tip .281 inch diameter.

modification

Gordon Craftsmen can adapt your early model equipment to meet today's needs.

J9360 SPACEPHONE is the lowest cost "walkie-talkie" available. Palm size (5 inches high, weighs only 8 oz.), battery operated (9 volt Burgess 2U6, Eveready 216 or equivalent), Citizen's Band two-way radio that can be used up to one-half mile. Easy to operate: press button to transmit, release to listen. Circuit is fully transistorized (three transistors), subminiaturized, crystal controlled to channel 14. High impact, shock resistant case. NOTE: 27 MC Citizen's Band Spacephone requires no license or examination. (NOTE: Other makes available, some with ranges up to 3 miles. Please write specifying your requirements).

J8355 RANGERHORN MODEL 1000 is a light-weight hand-held fully transistorized "Bull Horn" voice amplifier that will enable you to talk to people up to 1000 feet away. Ideal for location or large scale filming for giving directions to cast or crew. Easy to operate — just press the trigger incorporated in the pistol grip handle and talk. A unique directional listening feature transforms the Rangerhorn into a listening device for hearing distant sounds. Weighs less than two pounds. Only 10½ inches long. Uses six standard 1½ volt "C" photoflash batteries. High gain telephone type microphone; dynamic, Alnico V permanent magnet speaker. High impact shock resistant case.

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MOLE-RICHARDSON SOLARSPOTS

MOLE-RICHARSON SOLARSPOTS are of rugged, light sheet metal construction with interlocking channel for ventilation. Lamp features include: easily removable condenser lens, quick acting door catch, separate diffuser clips and rubber focusing handle with finger tip control, Alzak aluminum mirror, mogul bipost socket and 25 ft. rubber covered cable (please specify stage or two prong plug).



M-R MIDGET HEAD Type 1404 on Base plate, accepts 50 to 200 watt globes.

Condenser: 3 inch Fresnel, 8° to 50° Divergence

Pedestal Type 40651A for Midget



M-R BABY SOLARSPOT, Head Type 407, accepts 500 or 750 watt globes. Condenser: 6 inch Fresnel, 8° to 50° Divergence

Pedestal Type 40651A for Baby Solarspot

M-R JUNIOR SOLARSPOT Head Type 412, accepts 1000 or 2000 watt globes. Condenser: 9 inch Fresnel, 10° to 50° Divergence

Pedestal Type 410138 for Junior Solarspot

M-R SENIOR SOLARSPOT Head Type 415, accepts 5000 watt globes. Condenser: 14 inch Fresnel, 10° to 50° Divergence

Pedestal Type 41494 for Senior Solarspot

M-R TENER, Head Type 416, accepts 10,000 watt globe. Condenser: 20 inch Fresnel, 15° to 40° Divergence

Pedestal Type 41494 for Tener

M-R MOLEVATOR Type 325 (power driven pedestal)

for the best and latest in processing equipment

... see pages 78 through 80

MOLE-RICHARDSON BROAD AND STRIP LAMPS

MOLE-RICHARDSON BROAD AND DOUBLE BROAD LIGHTS are designed for use with PS-52 globes. Can also be supplied for Medium Bipost globes. Head is supported on a U-shaped yoke. Provision for barn doors and diffuser holder. Sheet metal construction. Aluminum reflector. Mogul screw socket accepts 500 to 1500 watt globes. 25 ft. rubber covered cable with either stage or house plug. (Please specify)

M-R SINGLE BROAD LIGHT TYPE 22 accepts single bulb. Has 10" x 13" aperture. Includes glass frame with 4 pieces of glass.

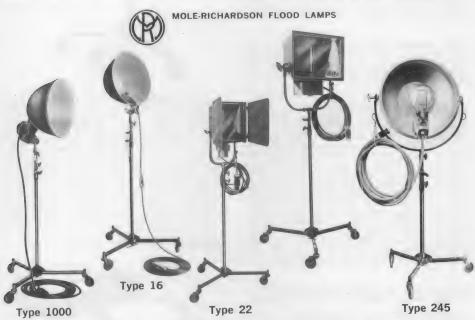
Pedestal Type 40651A for Single Broad Light

M-R DOUBLE BROAD LIGHT TYPE 23 accepts two bulbs. Has 12" x 20" aperture. Includes glass frame with 5 pieces of glass. Two 30 ampere switches.

Pedestal Type 40651A for Double Broad Light

M-R SKYLITE TYPE 245 provides 5000 watt illumination over a broad area. Especially suitable for lighting backings. Constructed of spun steel with baked aluminum finish. Mogul bipost socket. 25 ft. cable with 100A stage plug.

Pedestal Type 410138 for Skylite



M-R BELL LAMP TYPE 1000 provides a soft, diffused illumination from anodized reflector. Made of hard-tempered aluminum, designed for use with PS-52 500 to 1500 watt globes to afford range of wattages with long life. Mogul screw socket. 25 ft. rubber covered cable (specify stage or two-prong plug). Diffuser frame with spun glass diffuser included.

Pedestal Type 40651A for Bell Lamp

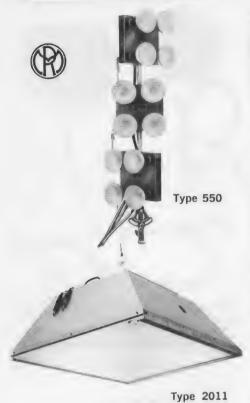
M-R CINELITE TYPE 16 is designed for portability. Domes nest for carrying. Head disassembles into components for transportation. Spun aluminum dome construction. Anodized finish reflector furnishes high level of illumination. Mogul screw socket. Accepts 500 or 1000 watt globes. 25 ft. rubber covered cable (specify stage or two-prong plug).

Pedestal Type 40651A for Cinelite



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Optical and Magnetic SOUND SYSTEMS

for most types of professional cameras
8mm • 16mm • 35mm

see pages 10, 11, 12; 18, 19, 20, 21; 44 through 58 M-R QUADLITE TYPE 550 is an inexpensive yet efficient flood light whose small size permits use in cramped space. May be tilted or swiveled in any direction. Four globes are individually controlled by separate switches. Aluminum casting and sheet construction. Accepts reflector type bulbs. 25 ft. of rubber covered cable (specify stage or 2-prong plug).

Pedestal Type 40651A for Quadlite

Stacking Spud Type 55018 (used between Quadlites to stack one on another)

Quadrant Type 55014 (mounted between 5/8 inch spud and Quadlite if tilting is desired)

M-R FIVE LIGHT OVERHEAD STRIP TYPE 1431 designed to furnish a wide spread of smooth illumination. Well ventilated. Three eye-bolts provided for hanging. Constructed of sheet steel with baked aluminum finish. Aperture $12\frac{1}{2}$ " x 49". Five porcelain mogul screw sockets. 25 ft. of cable with 100A Stage Plug.

M-R OVERHEAD STRIP DIFFUSER FRAME TYPE 1436 is a two-piece unit hinged for easy insertion of diffusion material.

M-R SIX-LIGHT OVERHEAD CLUSTER TYPE 2011 is designed to be hung from the top of the set and furnish a large smooth spread of soft illumination. Equipped with six porcelain mogul screw sockets. Constructed of aluminum with interior reflector finished in 3200°K color-corrected paint. Light in weight for easy hanging. Uses 1000 watt silver bowl type globes for "bounce light" from reflector for soft, shadowless illumination. Aperture is 33½" x 44". Weight is 28 pounds. plus 11 pounds for 25 ft. cable (with type 100A stage plug, furnished separate from lamp for attachment with pin plugs).

WIRE SCREEN TYPE 20111 is a single frame covered with chicken wire for protection from falling glass. May also be used for attachment of diffusing materials when desired.

M-R CONELITES

CONE LIGHTS are soft fill-lights that furnish a wide spread of soft-toned illumination. Cone lights possess an almost shadowless "bounce light" quality that is particularly efficient with modern high-speed films. They cast an overall illumination that fills in "holes" without adding additional shadow patterns. Actors may look directly into Cones without squinting and walk close to them without "burning up." M-R CONE-LITES are constructed of sheet steel, interior reflector surface painted with a special white diffusing paint and exterior finished in baked maroon enamel. Shield in front of globe reflects light toward cone and swings away for easy globe insertion. Equipped with 25 feet of cable (please specify stage or two-prong plug).

M-R CONELITE, Head Type 2211, accepts 500 or 750 watt globes. Diameter of aperture: 18 inches.

PEDESTAL, Type 40651A, for above

M-R CONELITE, Head Type 2221, accepts 1000 or 2000 watt globes. Diameter of aperture: 24 inches.

PEDESTAL, Type 410138, for above

M-R CONELITE, Head Type 2231, accepts 5000 watt globe. Diameter of aperture: 36 inches.

PEDESTAL, Type 41494, for above

CONE LIGHT ACCESSORIES

Lamp Accessories	Type 2211 Conelite	Type 2221 Conelite	Type 2231 Conelite
Diffuser Frame	Type 41699A	Type 22220	Type 22320
Single Lamp Scrim	Type 416101S		
Half Single Lamp Scrim	Type 416100S		
Double Lamp Scrim	Type 416101D		
Half Double Lamp Scrim	Type 416100D		
C-Clamp	Type 1201	Type 1201	Type 1201
	Туре	Types 500165	Types 500165
Adapter	500119	500166	500182



M-R MOLENSER, Head Type 2251, is a uniquely designed spotlight that is ideal for small theaters, night clubs, schools, television and motion picture effect lighting. Features threelens system: two stationary and one focusing. Intensity remains same at a given distance regardless of spot size. Special beam shapes may be projected by mattes made for the purpose. Special effects, such as clouds, may be projected. Bottom swings down for easy globe replacement. Focusing handle on side. Douser mounted in lamp. Diffuser clips on front of cone. Equipped with 25 feet of cable. Please specify stage or two-prong plug.

PEDESTAL, Type 410138, for above



Type 2252 Diffuser Changer (4 frames for gels or scrims)

Type 2253 Matte 3½ inch opening

Type 2254 Matte 3 inch opening

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Type 2255 Matte 21/2 inch Opening

Type 2256 Matte 2 inch Opening

Type 2257 Matte 11/2 inch Opening

Type 2258 Matte 1 inch Opening

Type 2259 Matte 1/2 inch Opening

Type 22583 Iris

Type 22511 Diffuser Frame

Type 1411 Pedestal

Type 1561 Pedestal

M-R MOLENSER LIGHT CHART

		Spot Dia	a. Feet
Distance Feet	Light Intensity F.C.*	No Matte No Iris 4½"	With Iris 4"
10	4300	2.0	1.8
20	680	4.6	4.0
30	290	7.1	6.3
40	160	9.7	8.6
50	80	12.3	10.9
100	20	25.0	22.2

 $^{\circ}\text{Measured}$ with 2000 watt, 3350 $^{\circ}\text{K}$ globe (reduce 15% for 3200 $^{\circ}\text{K}$ globe.)

NOTES: Eight mattes with openings of $3\frac{1}{2}$, 3, $2\frac{1}{2}$, 2, $1\frac{1}{2}$, 1, $\frac{1}{2}$, and $\frac{1}{4}$ inches are available as accessories. When inserted, they produce spots directly proportional to the sizes shown under "Spot Dia. Feet." For instance: a 2" matte (which is half the diameter "with Iris") will produce a spot 2 feet in diameter at 20 feet distance.

LENS SERVICE

More than 14,000 photographic lenses are in stock at Gordon Enterprises. Many are special purpose optics for specific applications. Others are stock mounted lenses that can be fitted to standard model cameras. Gordon Lens Service shops are thoroughly equipped to mount special purpose optics and long telephoto refractors or mirror-optical systems to any standard or customdesigned motion picture or photo instrumentation cameras. Many lenses in inventory may be custom adapted to fit your photographic situation. Check the time-saving lens charts, pages 35-40, to find which lenses are available in the mounting you desire - or which lenses may be custom mounted to fit your camera. Since this huge inventory --- world's largest selection of lenses - cannot be listed in this space limit, write concerning your special optical problem. Consultants will supply information you request and recommend the optics required.





M-R DUARC TYPE 40 is a twin arc lamp for floor and overhead lighting. Dual arc feeding mechanisms have individual motors. Quiet in operation for sound shooting. Ideal for lighting backings and for fill light. 40 Amperes, 115 volts DC only.

Pedestal Type 4066A for Duarc 40

M-R 120 AMPERE MOLARC TYPE 90 is ideal for key light. 14 inch Fresnel lens of Pyrex glass, 8° to 44° divergence. 120 amperes, 115 volts DC only.

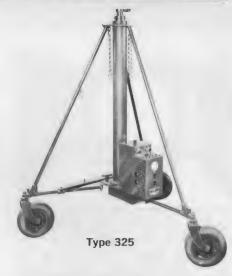
Pedestal Type 90140 for M-R 90

M-R 150 AMPERE MOLARC TYPE 170 is ideal for key light. 20 inch Fresnel lens of Pyrex glass, 8° to 48° divergence. 150 amperes, 115 volts DC only.

Pedestal Type 4504 for M-R 170

M-R 225 AMPERE MOLARC "BRUTE" TYPE 450 provides 2 to 3 times the light output of the Type 170 Molarc with 50% more power. 24 inch Fresnel lens of Pyrex glass, 12° to 48° divergence. 225 amperes, 115 volts DC only.

Pedestal Type 4504 for M-R 450



M-R MOLEVATOR TYPE 325 is power driven pedestal for large lamps. Ideal for Types 40, 90, 170 and 450 Molarcs and Type 416 Tener. Maximum load carrying capacity: 250 pounds. Mechanical jack screw provides positive support. Slip clutch protects mechanism at travel limits. Constructed of steel and bronze. Operates on 120 volts AC or DC; 5 amperes. Requires only 21 seconds to reach full elevation of 11 ft. Casters lock in extended position for stability. Folds for storage or transportation, no tools required.

available to you

over 1000 years of successful experience in photographic equipment by proven specialists.

These years belong to you when the Gordon organization serves your technical requirements in motion picture and photo instrumentation equipment.

M-R LAMP PEDESTALS

PEDESTAL TYPE 19720, LOW has 1 extension: Low 22 inches, High 32 inches

PEDESTAL TYPE 19721, STANDARD has 2 extensions: Low 43 inches, High 100 inches

M-R LIGHTWEIGHT LAMP PEDESTALS

M-R LITEWATE BABY SIZE TYPE 3281 Folding Pedestal weighs only 33½ lbs. Extends from 50 inches, to 81 inches, folded $45\,1\!\!/_2$ inches. All aluminum construction.

M-R LITEWATE SKY-HI TYPE 1851 Folding Pedestal weighs only 5 lbs. Extends from 59 inches, to 148 inches, folded 53 inches. All aluminum construction.

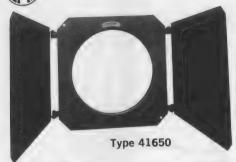
M-R COMET LAMP BOOM TYPE 75 will handle Midget, Baby Solarspot, Bell Lamp, Cine-lite, Single Broad or Quadlite on boom arm which can be adjusted horizontally and balanced in any position. Has folding legs, boom arm folds to upright, large locking casters. Height retracted: 5 ft. 3 inches; extended 8 ft. 10 inches. Boom arm length retracted: 5 ft. 4 inches, extended: 8 ft. 1 inch. Lamp mounting is spud-hung in rubber insulated U-shaped yoke.



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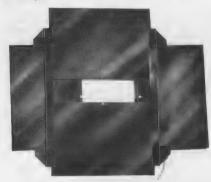
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2-LEAF BARN DOOR is used to cut off light from the camera and also to provide special lighting effects. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

4-LEAF BARN DOOR is used to cut off light from the camera and also to provide special lighting effects. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)



Type 41572

4-BLADE SLIDING BARN DOOR provides control of light size and shape, rotates. (CHECK LAMP ACCESSORY CHART for proper code letter for specific lamp.)

DIFFUSER FRAME holds diffusing material inserted in double-ring holder. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

BABY PEDESTAL TRIPLE HEAD TYPE 500216 mounts on Baby pedestal to provide concentration of three lamps.



Type 41549A

SNOOTS are supplied in sets of three sizes for directing light to a particular spot. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

DOT OR TARGET is available in Solid, or single or double scrim (Specify).

GOOSE NECK AND CLAMP Type 2432 attaches and holds to pedestal dots and targets.

JUNIOR WALL SLED Type 500191 hangs over set top to support Junior on set wall.



LAMP SCRIMS diffusing medium available in single, double, half single and half double thickness. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

CASTER POST Type 500179 is substituted for caster nut to mount lamp at caster height.

DIMMER PLATES Type 504; 755 to 1000 Watts for mounting on pedestal having an 1½ inch socket top; 25 ft. of cable with either stage or attachment plug, stage pocket and plug receptacle, and switch. (Please specify type number and plug desired.)

DIMMER PLATES Type 503; 1655 to 2000 watts is similar to above.

SKYLITE DIFFUSER HOLDER Type 24515 mounted on front to hold scrims, diffuser and barn door.



SHUTTER controls light intensity especially for color photography. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

IRIS provides quick and easy way to control size of circle of illumination. (CHECK LAMP ACCES-SORY CHART for proper ordering code letter for specific lamp.)



BABY WALL PLATE Type 500141 is a Baby Solarspot lamp mount to be nailed to set wall or top.



PEDESTAL BRACKET Jr. may be clamped anywhere on the upright tube of a pedestal to provide a low position for the lamp head. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

PEDESTAL EXTENSION Type 500114 provides 3 ft. additional height for Junior and Senior pedestals except SKY-HI.

DIFFUSER BOX attaches to pedestal upright for handy storage of diffusers. (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)

JUNIOR TO BABY PEDESTAL ADAPTER Type 50073 adapts $1\frac{1}{8}$ inch pedestal socket to $\frac{5}{8}$ inch spud.

PIN PLUGS Type 22622 Female, 22623 Male, 22624 Fibre. Provide a means for easy and quick cable attachment.

BABY PEDESTAL DOUBLE HEAD Type 500250 mounts on Baby Pedestal to provide concentration of two lamps.



C CLAMP Type 1201 features set screw which adapts to pipe 1 inch to 2 inch outside diameter.



MOGUL BIPOST SOCKET Type 500227 for 1000 or 2000 watts has $\frac{3}{4}$ -16 x $\frac{3}{4}$ " stud for attaching.

COOKIE Type 1541 provides shadow pattern. Use Type 24 Century head.

SET WALL BRACKET Type 500229 nails to top of



TYPE 500119 ADAPTER is for lamps with socket in yoke.

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Type 500166

TYPE 500166 ADAPTER substitutes for Type 500165 Adapter, in hanging lamps with removable yoke pins.



TYPE 500165 ADAPTER is for lamps having $1\frac{1}{8}$ inch yoke pin.



TYPE 500182 ADAPTER substitutes for Type 500165 Adapter, in hanging lamps with removable yoke pins.

JUNIOR EXTENSION ARM Type 1671 extends over sets, fits in $1\frac{1}{8}$ inch hole.

JUNIOR TROMBONE Type 1731 hangs over set top to support lamp on set wall.

BABY TROMBONE Type 500190 hangs over set top to support lamps on set wall.

JUNIOR WALL PLATE Type 1721 is a lamp mount to be nailed to set wall or top.

5000 to 2000 WATT ADAPTER Type 1921 allows 2000 watt globe to be used in 5000 watt socket.

CASE Type 1821 holds four 2000 Watt globes.

CASE Type 1831 holds four 5000 Watt globes.

CASE Type 1841 holds one 10,000 Watt globe.



Type 407B

MACBETH FILTERS convert tungsten illumination to daylight color temperature for color filming. (Light loss: 64%) (CHECK LAMP ACCESSORY CHART for proper ordering code letter for specific lamp.)



MOLE-RICHARDSON SOLARSPOT LAMP ACCESSORIES

Mole-Richardson Solarspot lamp accessories are listed in chart form for convenience in ordering.

LAMP ACCESSORIES	Midget Type 1404	750 Watt Baby Solarspot Type 407	2000 Watt Junior Solarspot Type 412	5000 Watt Senior Solarspot Type 415	10,000 Wate Tener Type 416
2-LEAF BARN DOOR	40445	40755	41252	41560	41616
4-LEAF BARN DOOR	40445A	40755A	41252A	41560A	41616A
DIFFUSER FRAME	40437A	40748A	41245A	41548A	41699A
SET 3 SNOOTS	40438A	40747A	41243A	41549A	
JUNIOR WALL SLED			500191		
SINGLE LAMP SCRIM	40447S	40777S	41258S	41563S	416101S
HALF SINGLE LAMP SCRIM	40446S	40776S	41257S	415628	416100S
DOUBLE LAMP SCRIM	40447D	40777D	41258D	41563D	416101D
HALF DOUBLE LAMP SCRIM	40446D	40776D	41257D	41562D	416100D
SHUTTER		505407	507412	514	513
IRIS		1881	1871	1861	
PEDESTAL EXTENSION			500114	500114	
BABY PEDESTAL BRACKET	500144	500144			
BABY PEDESTAL DOUBLE HEAD	500250	500250			
BABY PEDESTAL TRIPLE HEAD	500216	500216			
JUNIOR PEDESTAL BRACKET			500152		
DIFFUSER BOX		40780	41262	41569	
SET WALL BRACKET			500229		
C-CLAMP	1201	1201	1201	1201	1201
ADAPTER	500119	500119	500165	500165	500165
ADAPTER			500166	500182	500182
ADAPTER			50073		
JUNIOR EXTENSION ARM			1671		
BABY TROMBONE	500190	500190			
JUNIOR TROMBONE			1731		
4-BLADE SLIDING BARN DOOR		40789	41265	41572	
BABY WALL PLATE	500141	500141			
JUNIOR WALL PLATE			1721		
MACBETH FILTER		407B	412B	415B	
CASTER POST	500179	500179			
5000 to 2000 WATT ADAPTER				1921	
GLOBE BOX			1821	1831	1841



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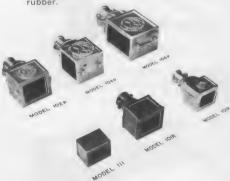
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MOLE-RICHARDSON FLOOD AND BROAD LAMP ACCESSORIES

Mole-Richardson Flood and	d Broad lan	np accesso	ries are liste	ed in chart		
LAMP ACCESSORIES	Bell Type 1000	Cinelite Type 16	Skylite Type 245	Quadlite Type 550	Single Broad Type 22	Broad Type 23
2-LEAF BARN DOOR			450260*		229	
4-LEAF BARN DOOR			450267*			
DIFFUSER FRAME	100016A	1622	450481A*		2226*	2320*
DIFFUSER HOLDERS (Pair)					2128	2022
SKYLITE DIFFUSER HOLDER			24515			
SINGLE LAMP SCRIM	100025S	1623S	450511S*		2230S*	2324S*
HALF SINGLE LAMP SCRIM	100026S	16248	450512S*		22298*	2325S*
DOUBLE LAMP SCRIM	100025	1623D	450511D*		2230D*	2324D*
HALF DOUBLE LAMP SCRIM	100026D	1624D	450512D*		2229D*	2325D*
SINGLE SILK					2231S	23238
DOUBLE SILK					2231D*	2323D*
BABY WALL PLATE	500141	500141		500141	500141	500141
BABY PEDESTAL BRACKET	500144	500144		500144	500144	500144
BABY STANDARD PEDESTAL				40651A		
BABY LOW PEDESTAL				1391		
BABY PEDESTAL DOUBLE HEAD	500250	500250		500250	500250	
BABY PEDESTAL TRIPLE HEAD	500216	500216		500216	500216	
BABY TROMBONE	500190	500190		500190	500190	500190
PEDESTAL EXTENSION			500114			
SET WALL BRACKET			500229			
JUNIOR EXTENSION ARM			1671			
JUNIOR WALL PLATE			1721			
GLOBE BOX			1831			
C-CLAMP	1201	1201	1201		1201	1201
CASTER POST	500179	500179		500179	500179	500179
ADAPTER	500119	500119	500165	500119	500119	500119
ADAPTER			500166			
5000 TO 2000 WATT ADAPTER			1921		*Requ	ires Holde

PLUGGING BOXES

M-R PLUGGING BOXES are designed for attachment to power distribution cables. All have recessed contact plates. Each "hole" accommodates two Type 50 or one Type 100A Safety Stage Plug. All boxes are made of Aluminum except Type 101R which is rubber.



SINGLE HOLE PLUGGING BOXES

M-R TYPE 101P is single hole. Designed for 2 conductor cable only.

M-R TYPE 101R is single hole. Designed for 2 conductor cable only.

M-R TYPE 111 is one hole. Designed for installation within a structure and requires mounting. Recessed contact plates moulded into rubber case.

TWO HOLE PLUGGING BOXES

M-R TYPE 102P is two hole. Designed for 2 conductor cable only.

complete editing equipment

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FOUR HOLE PLUGGING BOXES

M-R TYPE 104P is four hole. Designed for 2 or 3 conductor cable. (Please specify)

SIX HOLE PLUGGING BOXES

M-R TYPE 106P is six hole. Designed for 2 or 3 conductor cable. (Please specify)

MOLE-RICHARDSON SAFETY PLUGS

MOLE-RICHARDSON SAFETY PLUGS have rugged copper floating contacts. Plugs compress upon entering plugging box and expand in contact position. Plug's contact surfaces do not touch the box contacts until they clear the box opening, thus eliminating possibility of shock. No "live" parts are exposed after plug is completely inserted in box. Body and cover of plugs are laminated, cloth-base phenolic compound with high impact strength and low moisture absorption.

 $\mbox{M-R}$ TYPE 50 HALF PLUG for No. 18 to No. 12 AWG cord.

M-R TYPE 50F2 HALF PLUG is similar to above but contains 2 30-Amp fuses.

 $\ensuremath{\text{M-R}}$ TYPE 100A FULL PLUG for No. 8 to No. 14 AWG cable.

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MOLE-RICHARDSON CABLE POWER DISTRIBUTION COMPONENTS

The following are various combinations of cables, plugging boxes, stage plugs, bus bar lugs, etc., in various lengths to fit any lighting situation.

M-R TYPE 101A: Type 101P Plug Box with 25 feet of No. 8 2-conductor cable and Type 100A Stage Plug.

M-R TYPE 101B: Type 101R Plug Box with 25 feet of No. 8 2-conductor cable and Type 100A Stage Plug.

M-R TYPE 102: Type 102P Plug Box with 25 feet of No. 6 2-conductor cable and Type 100A Stage Plug

M-R TYPE 104A: Type 104P Plug Box with 50 feet of No. 4 2-conductor cable and Type 50013A Bus Bar Lugs.

M-R TYPE 104B: Type 104P Plug Box with 50 feet of No. 4 3-conductor cable and Type 50013A Bus Bar Lugs.

M-R TYPE 106A: Type 106P Plug Box with 50 feet of No. 2 2-conductor cable and Type 50013A Bus Bar Lugs.

M-R TYPE 106B: Type 106P Plug Box with 50 feet of No. 2 3-conductor cable and Type 50013A Bus Bar Lugs.

M-R TYPE 123: 2/3 Extension with 50 feet of No. 2 3-conductor cable and Type 50013A Bus Bar Lugs.

prices and price lists

As you use this book, you will see that it is much more than a compilation. Many pages of charts and other valuable material can be of practical help to you for years to come. In view of the long life of these references, and of the continued developments and changes in motion picture equipment --particularly in photo instrumentation—it would not be realistic to include prices of equipment in this catalog. Your inquiries to the Gordon Sales Service Department will bring you current quotations promptly. At the same time, you will be informed of any superseding models of the products you seek.

M-R TYPE 122: 2/2 Extension with 50 feet of No. 2 2-conductor cable and Type 50013A Bus Bar Lugs.

M-R TYPE 140: 4/0 Feeder with 100 feet 0000 single conductor cable and Type 50044 Bus Bar Lugs.



MOLE-RICHARDSON SPLICING BLOCK TYPE 177 eliminates danger of fire and shock because its massive copper splicing plates are recessed well inside frame and separated by heavy hardwood insulating panels. Splicing plates are set at an angle for safety and to permit easy attachment of cable lugs with wrench or pliers. Rubber flaps offer additional protection.

MOLE-RICHARDSON CABLE POWER DISTRIBUTION ACCESSORIES

M-R LINE FUSES are used for in-the-line fusing and will handle a maximum load of 250 amps. Can be used with 20, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 175, 200, 225, or 250 ampere fuses.

M-R TYPE 500133 for wire sizes 2 and smaller. Maximum conductor diameter $\frac{1}{2}$ inch. Maximum cable outside diameter $\frac{3}{4}$ inch.

M-R TYPE 500134 for wire sizes between 2 and 0000. Maximum conductor diameter $\frac{1}{2}$ to $\frac{1}{4}$ inch maximum cable outside diameter 1 inch.

M-R BUS BAR LUGS are brass castings with setscrew. They are used on ends of cable for attaching to Bus Bars.



M-R TYPE 50013A for wire sizes 2, 4 and 6
M-R TYPE 450212A for wire sizes 0 and 00
M-R TYPE 50044 for wire sizes 000 and 0000

MOLE-RICHARDSON CORD POWER DISTRIBUTION

M-R CORD POWER DISTRIBUTION CABLES AND BOXES are designed to distribute power to a maximum of 3000 watts. Switches have 1500 watt capacity. Boxes and siwtches afford a means of controlling lights from a central location. Cables are 2-wire, 25 feet in length. Supplied with house or twist-lock plug. Stage plug can be supplied at extra cost. (Please specify type of plug when ordering.)

M-R TYPE 1631: 2 receptacle for house plugs

M-R TYPE 1661: 2 receptacle for twist-lock plugs

M-R TYPE 1591: 4 receptacle for house plugs

M-R TYPE 1651: 4 receptacle for twist-lock plugs.

M-R TYPE 1751: 3 receptacle (with switches) for house plugs

M-R TYPE 1741: 3 receptacle (with switches) for twist-lock plugs.

MOLE-RICHARDSON ARC LAMP ACCESSORIES Mole-Richardson Arc Lamp accessories are listed in chart form for convenience in ordering.

120 150 225 **Ampere** Ampere Ampere Molarc Molarc Molarc LAMP ACCESSORIES Type 90 **Type 170** Type 450 2-LEAF BARN DOOR 41560 41616 450260 4-LEAF BARN DOOR 41560A 41616A 450267 DIFFUSER FRAME 41548A 41699A 450481A SET 3 SNOOTS 41549A SINGLE LAMP SCRIM 41563S 416101S 450511S HALF SINGLE LAMP SCRIM 41562S 416100S 450512S 416101D 450511D DOUBLE LAMP SCRIM 41563D HALF DOUBLE LAMP SCRIM 416100D 450512D 41562D SHUTTER 514 513 518 IRIS 1861 4-BLADE SLIDING BARN DOOR 41572



MOTION PICTURE EQUIPMENT

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M-R TYPE 176 30KVA, 3 phase, 60 cycle Transformer is designed to convert high voltage to usable voltage. Input power supply is 240 or 480 volts, 3-phase, line current for 240 volts, 72 amperes and 480 volts, 36 amperes. Complete electrical specifications available on request.



M-R TYPE 295 2-unit remote controlled switchboard DC built, adaptable to AC. Two circuits each produce 120 to 140 volts with center bar neutral. Remote control is by 3 switches mounted in a box at end of 100 feet of cable. Complete electrical specifications available on request.



M-R WINDMACHINE MOLEFFECT produces maximum air flow with minimum noise. Air Stream directional with vanes, or broad without vanes. Rheostat control provides smooth, variable speed. Operates on either AC or DC. Sets on floor or mounts on pedestal. Tilts or pans 360° Fan unit is 20¼ inches in diameter, 17½ inches deep, weighs 74 lbs. 25 feet, two-conductor cable. When ordering specify stage or two-prong plug.

M-R TYPE 367 Dimmer Combination provides adjustable cue stops to set limits of lever travel. Graduated scale for repeat settings. Levers will operate single plates or a turn of the knob will interlock any combination. Complete electrical specifications available on request.

TRADE INS

You may trade in any photographic equipment on materials listed in this catalog. Take this opportunity to up-date your equipment. You will get more allowance for your camera, printer, projector that may be obsolete or excess; and you will enjoy using newer, better-designed or more elaborate models now available. This offer is made because Gordon shops can, in most every instance, recondition and find a ready market for the item you no longer need. While the equipment you are now using may have outlived its usefulness for your applications, it may be just what some other cameraman, producer, laboratory technician or film editor needs. Being in constant touch with motion picture organizations and photo instrumentation personnel throughout the world, Gordon Enterprises is in excellent position to allow you the best possible trade on new or used equipment. List the material you would like to acquire, and the items you wish to trade. If you prefer, Gordon Enterprises will purchase your equipment outright.

TE Baby Junior Senior Rell Cinelii

NOTE	Midget	Baby Solarspot	Junior Solarspot	Senior Solarspot	Tener	Bell	Cinelite	Skylite	Quadlite	Single Broad	Double Broad
The following M-R Pedestals may be substituted for the standard Pedestal listed with the lamp head.		Pedestal Type 40651A	Pedestal Type 410138	Pedestal Type 41494	Pedestal Type 41494	Pedestal Type 40651A	Pedestal Type 40651A	Pedestal Type 410138	Quadrant Type 55014	Pedestal Type 40651A	Pedestal Type 40651A
BABY SIZE STANDARD TYPE 40651A	10	10							~		
BABY SIZE LOW TYPE 1391	-	1				10	1		-	1	-
BABY SIZE SKY-HI TYPE 1581	1	-				1	-		-	~	
BABY SIZE STANDARD LITEWATE TYPE 3281	1	-				10	-		1	~	-
BABY SIZE SKY-HI LITEWATE TYPE 1851	1	-				1	-		-	-	
COMET TYPE 75	-	1				-	-		-	1	
JUNIOR SIZE LOW TYPE 1411			10								
JUNIOR SIZE SKY-HI TYPE 1561			1								
SENIOR SIZE LOW TYPE 1411				1	10			10			
SENIOR SIZE SKY-HI TYPE				1				-			

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MOLE-RICHARDSON "BUTTERFLIES" are used to soften harsh sunlight. 6 ft. square aluminum frame may be easily assembled and knocked down. Scrims have elastic corners and ties along sides for easy attachment to frame.

Type 50073 Jr. to Baby Pedestal Adapter

Type 244 Century Clamp Head

Type 14910 Rod and Century Clamp

Type 1491 Frame only complete

Type 14913 Set Covers in bag (3 scrims)

Type 14914 Bag only

Type 14915 Single Scrim only

Type 14916 Double Scrim only

Type 14917 Silk Only

MOLE-RICHARDSON MOLEFLECTOR Type 3274 provides two 48 inch x 48 inch reflection surfaces, one bright silver, other diffused. Constructed of plywood in pine frame. Shellacked natural wood finish. Features a quickfolding pedestal with extension leg for setting up on uneven surfaces. Brake in yoke may be reached from floor.

Type 3273 Yoke

Type 3276 2 Unit storage Box

Type 3275 4 Unit Storage Box

Type 1781 30" x 36" Model Moleflector

Type 1771 Yoke for 30" x 36" Model

Type 1801 2 Unit Storage Box for 30" x 36" Model

Type 1791 4 Unit Storage Box for $30^{\prime\prime}$ x $36^{\prime\prime}$ Model

Type 3272 Hi-Pedestal for both models

Type 3277 Brace for both models

Type 3279 Low Pedestal for both models



M-R FOGMAKER MOLEFFECT TYPE 1963 is a compact unit that can accomplish the following by using the special liquids listed below: (1) Create the effects of fog, smoke, haze and mist with Fog Juice. (2) Clear the area of haze with Fog Chaser. (3) Perfume the air with Deodorants. (4) Kill flying and crawling insects with insecticide. Operates on the vaporization principle of a tea kettle from small amounts of liquid. Operates on 115 volts AC or DC, 8.3 amperes, 1000 watts.

Type 1964 Fog Juice

Type 1965 Fog Chaser

Type 1966 Plastic Funnel

Type 1967 Fog Cooler

Type 19613 Spice Deodorant

Type 19614 Mint Deodorant

Type 19615 Insecticide

Type 1962 Carrying Case

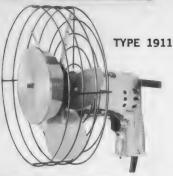
Type 1961 Fogmaker Kit

M-R COBWEB SPINNER MOLEFFECT TYPE 1911 spins realistic cobwebs simply and inexpensively. Unit consists of a lightweight motor unit resembling an electric drill to which is attached a conventional multi-blade fan and a sturdy wire guard. Rubber cement is released through a tiny valve at the center as the spinner revolves. The web structure, being composed of rubber cement, is easily rubbed off after filming. When difficult removal situations are encountered removal of remnant fragments is expedited by use of a small amount of benzol thinner, which is part of kit.

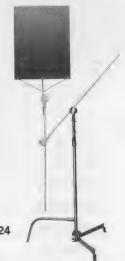
Type 1913 Cobweb Cement

Type 1914 Cleaner-thinner

Type 1915 Duster



Type 1916 Cobweb Dust
Type 1916 Cobweb Dust
Type 1912 Carrying Case
Type 1918 Cobweb Spinner Kit



M-R CENTURY TYPE 24 HEAD may be mounted on Type 324 Century Pedestal or on any 5% inch spud. Two 38 inch extension arms are provided. Each arm has adjustable head that allows positioning arm at any angle for holding flag, scrim, cutter or cookie. Pedestal has one high and two low legs for stacking. Pedestal extends to 100 inches and retracts to 40 inches.

M-R CENTURY TYPE 324 PEDESTAL

Single Scrim Type 2427S (18" X 24")

Double Scrim Type 2327D (18" X 24")

Cloth Flag Type 2428 (18" X 24")

Cloth Cutter Type 2429 (10" X 48")

Single Scrim Type 2423D (24" X 36")

Double Scrim Type 2423D (24" X 36")

Cloth Flag Type 2437 (24" X 35")

Cookie Type 1541

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D6501 CARON MODEL A 110 VOLT AC MOBIL-POWER UNIT mounts under the hood of any car or truck. Will deliver 30 amps (3300 watts) of 60 cycle electricity for operating camera motors, sound recorders, booster lights or any electric tool or appliance on remote locations. CARON is no larger than standard 6 or 12 volt auto generators. It is driven by the fan belt from (1) water pump (2) crankshaft or (3) DC generator pulley. Easily mounted on engine block. Brackets available for all popular cars, station wagons, and trucks. Electricity is produced only when switch is on. Generator pulley is constantly engaged, but when switch is off unit is freewheeling with virtually zero drag on car engine. Unit is variable speed and voltage will vary with RPM of car engine. 60 cycle current is produced at 3600 RPM (normal car idling

speed). Maximum rated output reached at higher RPM. For mobile use or use at varying speeds, a voltage regulator is available which can be set to hold voltage at desired level regardless of high RPM. Unit is capable of sustained service over long periods without harm to unit or engine. Bearings are long-life, self-oiling type, easily replaceable at garages or generator shops. Off-on switch, voltage meter and hand throttle regulator, on single panel, mounts on dash. Model A may be used with 12 or 24 volt system.

D6502 CARON MODEL B, similar to above, 2500 watts output, for 6 or 12 volt system

CARON MOUNTING KITS (1957 and Later Models)

D6520 CARON KIT NO. 1: G.M.C. V-6 Trucks; Chevrolet 6 and 8 cylinder trucks and pick-ups; Ford 6 cylinder trucks and pick-ups; International light model trucks

D6521 CARON KIT NO. 2: Ford V-8 trucks and pick-ups

D6522 CARON KIT NO. 3: Ford V-8 station wagons and passenger cars

D6523 CARON KIT NO. 4: Chrysler cars and Dodge trucks

NOTE: Please write for mounting kit availability for earlier cars and trucks and all other unlisted models.

BULBS FOR USE WITH COLORTRAN AND SIMILAR CONVERTERS

Note: Please order by Gordon Enterprises Stock Number

ORDER NO.	CODE	WATTS	BULBS	BASE	BEAM
G6000	150PAR/FL	150	PAR-38	Medium	Flood
G6001	150PAR/SP	150	PAR-38	Medium	Spot
G6002	300PAR56/WFL	300	PAR-56	Mogul End Prong	Wide Flood
G6003	300PAR56/MFL	300	PAR-56	Mogul End Prong	Medium Flood
G6004	300PAR56/NSP	300	PAR-56	Mogul End Prong	Narrow Spot
G6005	500PAR64/WFL	500	PAR-64	Ext. Mog. End Prong	Wide Flood
G6006	500PAR64/MFL	500	PAR-64	Ext. Mog. End Prong	Medium Flood
G6007	500PAR64/NSP	500	PAR-64	Ext. Mog. End Prong	Narrow Spot
G6008	1500PAR64/15WF*	1500	PAR-64-15	Ext. Mog. End Prong	Wide Flood
G6009	150R/FL	150	R-40	Medium	Flood
G6010	150R/SP	150	R-40	Medium	Spot
G6011	300R/FL	300	R-40	Medium	Flood
G6012	300R/SP	300	R-40	Medium	Spot
G6013	500R/3FL	500	R-40	Mogul	Flood
G6014	500R/3SP	500	R-40	Mogul	Spot
G6015	500R/FL	500	R-60	Mogul	Flood
G6016	750R/FL	750	R-60	Mogul	Flood
G6017	1000R/FL	1000	R-60	Mogul	Flood
G6018	1500R/FL	1500	R-80	Mogul	Flood
G6019	150A	150	A-23	Medium	Inside Frosted
G6020	200A	200	A-25	Medium	Inside Frosted
G6021	150/PS25/IF	150	PS-25	Medium	Inside Frosted
G6022	200/PS25/IF	200	PS-25	Medium	Inside Frosted
G6023	1M/PS52/77	1000	PS-52	Mogul	Flood

*Can Not Be Used With Converter

CARON ACCESSORIES & REPLACEMENT PARTS

NOTE: Please specify whether for Model A or B

D6503 110 volt A-C Voltage Regulator

D6504 Armature with Collector Ring

D6505 Field Coils

D6506 Front End Plate

D6507 Back End Plate

D6508 Sealed Bearings

D6509 Brush Holders

D6510 Brush Holder Caps

D6511 High Metallic Brushes

D6512 Voltmeter Assembly and Panel

D6513 Voltmeter only A-C 0 to 150 Volts

D6514 Toggle Switch

D6515 Bulb for Panel

D6516 Locking Type Throttle Rod

D6517 Add-On Pulley for Driving Unit

D6518 Pulley for Power Unit

D6519 Fan for Power Unit

Photogrammetry

Gordon Enterprises has the answers to all your needs in aerial photography and plotting equipment from pocket type stereoscopes to complex stereo plotting equipment.



G2495 LOWEL-LIGHT can be attached in five seconds to most walls and surfaces: paint, plaster, wood, metal, glass, etc. Designed for R-40 reflector bulbs 150 to 500 watts. Special Gaffer-Tape holds unit securely without marring. Notch and chain locks the unit on stands, pipes, furniture, shelves, doors, instantly. Swivel and balanced weight distribution provide complete directional control and simple, dependable tension adjustment. Heat-insulated finger grips allow directional adjustment with bare hands. Each lamp comes with small roll of Gaffer-Tape.

G2496 LOWEL-LIGHT FOLDING BARN DOOR fits directly on front of bulb. Weighs only $4\, {}^1\!/_{\!2}$ ozs. Folds flat when not in use.

G2497 LOWEL-LIGHT KIT contains 5 tape-up, clamp-on lighting units and a large roll of Gaffer-Tape in a fibre carrying case. (Barn doors not included in kit; storage space provided for 5.)

G2498 GAFFER-TAPE - 15 yard rolls.

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lighting equipment



G2641 SYLVANIA PROFESSIONAL SUN GUN delivers 5,000 watts of exposure at 3400°K. Halogen lamps (ASA #DXN) draws 8.5 amperes from 120 volts AC source. Light output 65,000 center beam candlepower on "Hi" position. 15,000 center beam candlepower on "Lo" position. Provides a coverage of 30° vertical, 36° horizontal. Lamp has built-in fuse and maintains full brightness and constant color temperature throughout entire life (rated 12 hours). Dual purpose flood lens afford choice of 110° x 48° or 60° x 54° beam for broader light coverage. Universal bracket permit Sun Gun to be mounted on any camera. Head is adjustable from 30° to full 90° bounce position. Four-leaf barn door assembly included.

G2642 31/2 inch snoot.

G2643 Optical "Sniper Snoot" provides optically controlled $^{3}\!4$ " diameter light beam. Used with $3\,1\!\!/_{2}$ inch snoot.

G2644 Large barn doors.

G2645 Accessory holder permit usage of variety of accessories.

G2646 Daylight filter converts color temperature of light for use with Daylight Type Color

G2647 3200°K Filter converts color temperature for use with Type B color film.

G2648 Diffusing Filter (Scrim)

G2649 Super Spread Lens

G2650 Carrying case designed to hold Sun Gun and accessories



G2653 SYLVANIA BATTERY-POWERED SUN GUN is a 30 volt DC nickel-cadmium battery pack portable motion picture light that attaches to camera. Allows filming motion pictures in black and white or color anywhere. Power supply is specially designed by Frezzolini, renowned authority on power pack design. Built-in charger

recharges automatically in short time on standard 110 volt AC current. Equipped with a halogen lamp in a $2^3\!\!/_4$ inch reflector which may be tilted for bounce and indirect lighting. Bulb has rated life of 12 hours. May be operated continuously for 32 minutes with output of 20,000 center-beam candlepower before recharging is required. Light is balanced for 3400° K. Unit measures only 10" high x 10" long x 3" wide. Weighs only $16^1\!\!/_2$ pounds.

G2654 WESTINGHOUSE STUDIO ONE CAMERA LIGHT features an exclusive DXY 650 watt sealed-beam type lamp. Color temperature of 3400°K. for perfectly balanced photography. Lamp life is 8 hours. Light may be used in any position. Adjustable swivel joint is provided for bounce lighting. Housed in black plastic. Attaches to any motion picture camera by means of a lightweight aluminum mounting bracket. Supplied with 10 ft. cord. Power requirement: 6 amps. 120 volt AC.



G7091 TELEQUIP PORTABLE TEMP-LITE is a double unit consisting of two lamps of 650 watts each. Beam spread of single lamp is 40°, double lamp is 90°. 115-120 volts. Lamp life 100 hrs. 3200°K. color temperature.

G7092 Same unit as above in kit form consisting of 2 Temp-lite fixtures complete with lamps, mounting yoke, telescoping 9 ft. castered stand, 2 sets of barn doors, 2 pyrex diffusers, 2 spare lamps and sturdy fibroid carrying case.

G7093 Spotlight adapter.

G7094 Snoot.

G7095 Compact in-line dimmer.

G7096 Pyrex color filters.

G7097 TELEQUIP L-F-R FLOOD LIGHTS feature a lens, filament and reflector in an integral unit. Available from 250 watts to 1,500 watts. Dichroic filtering reduces heat transmission to subject. Single unit construction permits 90% efficiency.

G7794 ELECTRO POWERPACS INC. CINE-LIGHT 250-B is designed for all-weather shooting in both color and black and white. Light output is 250 watt for 30 minutes at 3400° Kelvin with each charge. Polished and anodized 9" reflector is adjustable from spot to flood. Rechargeable sintered-plate-vented Nickel Cadmium batteries in rugged, heavy duty plastic case with built-in indicator which allows constant check of charge. Transistorized 12 volt charger has controlled fast charge with automatic trickle to preserve battery life. Mounting bracket provided for use on or off camera. Weight: 14 lbs.

G2490 FREZZO-LITE MODEL *500" will deliver a minimum of 24 minutes of high intensity light without recharge, enough to film up to 1,500 ft. of 35mm or 750 ft. of 16mm film. Power pack, hermetically sealed in stainless steel case, is chemically and mechanically indestructible under

normal operation. Color temperature is 3400° Kelvin, good for both color and black and white film. Model "500" power supply may be ordered with a special dual charger for recharging from 110 Volts AC and from auto while driving. Charger will recharge the power pack automatically in approximately 2 hours. Reflector unit is equipped with an adjustable light beam ranging from 10° to 90°

AMERICAN CINEMATOGRAPHER MANUAL

Compiled & Edited

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Associate Editors
ARTHUR MILLER, A.S.C.
WALTER STRENGE, A.S.C.

AMERICAN CINEMATOGRAPHER MANUAL contains complete shooting data for the theatrical, television, industrial, military, educational and documentary cinematographer filming 65mm, 35mm, 16mm anamorphic or spherical motion pictures in any aspect ratio, in color or black and white, silent or sync-sound, high or low camera speed, in the studio or on location, in the arctic or in the tropics. The first edition of the American Cinematographer Man-ual, now in its second giant printing, is pub-lished by the American Society of Cinematographers, comprising the world's foremost directors of photography, and recognized directors of photography, and recognized throughout the motion picture industry since 1919 as an organization promoting the highest photographic standards. Editor Joseph V. Mas-celli is a prize winning free-lance cinematographer and writer with more than twenty years experience in military, industrial, doc-umentary and television motion picture camera work. He is the author of more hundred magazine articles on motion picture production from the cameraman's point of view. Associate Editor Arthur Miller, A.S.C. is a pioneer in the industry and the winner of three "Oscars." Associate Editor Walter Strenge, A.S.C. was one of Hollywood's first cameramen to experiment with the special requirements of early television filming. The Manual is the most comprehensive compilation of cinematographic data ever assembled. Its ten sections cover: Cameras, Films, Lenses, Exposure, Black & White Filters, Color, Lighting, Background Process, Television & Sound, Special Techniques. Included are many lens formulas, electrical data tables, footage conversion tables, and a list of Motion Picture Technical Terms in Five Languages: English, Spanish, French, and German. The Manual contains many descriptive tables, diagrams, charts and drawings covering lens angles, filter factors, shutter angles, camera speeds, incident light, light ratios, aspect ratios, TV cut-off, electrical data, etc. Included are many pages of informational text in condensed form covering data never be-fore published on panning speeds, optical effects, ultra high speed, underwater cinematography, shooting background plates, shooting process scenes, traveling mattes, shooting day for-night in color and black & white, make-up, picture and sound synchronizing methods, sound recording, artificial lighting, color, lighting ratios, etc. No professional cinematographer can afford to operate without this helpful book which will aid him in achieving more accurate results with greater speed and efficiency. If you so request, Gordon Enterprises will personalize your copy by imprinting your name in gold on the cover. An excellent gift idea for your friends in the motion picture industry.

X6783 AMERICAN CINEMATOGRAPHER MAN-UAL, 420 pages, in handy pocket size, 4" x 6%", bound in rugged, highly flexible DuPont material that can be wiped clean. \$7.50



MOTION PICTURE EQUIPMENT

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lighting equipment

Color ran LIGHTING SYSTEM

COLORTRAN lighting is a widely accepted method of motion picture illumination because its color-correct, low-amperage, lightweight features make it the ideal lighting system for illuminating both studio and location interiors. COLORTRAN controls both intensity and color temperature by stepboosting the voltage fed into ordinary tungsten lamps, both household and sealed-beam type, by operating them through specially designed converters. Increasing the voltage of the tungsten filament results in higher light intensity and shifting of the light spectrum towards blue as it is raised in Kelvin temperature. A lamp which normally burns at 2900°K can be boosted to 3450°K with an increase in light intensity of approximately 400%. COLORTRAN delivers even, smooth, controlled light without the use of fresnel lenses. It is possible to boost a 500 watt PAR 64 lamp (drawing less than 5 amperes at 220 volts or 9 amperes at 120 volts) to equal the coverage and light output of a 5000 watt studio light. A recent addition, the Super-Eighty Light, can be step-boosted through the COLORTRAN Converter to deliver the equivalent of a huge 10,000 watt Studio Spotlight — yet consume only 13.7 amperes at 220 volts. An integrated 3 wire grounded system meets all accepted electrical safety standards.

COLOTTAN CINEMASTER MARK II CONVERTERS

COLORTRAN CINEMASTER MARK II CON-VERTERS are designed to provide a range of boosted voltages for the operation of tungsten filament lamps according to the COLORTRAN system. They provide a maximum flexibility with regard to the range of input voltages acceptable and adjustment of output voltages for powering the lamps. The new Mark II Converters now offer up to 50% greater capacity with full duty cycle (may be operated continuously at full load). All switch capacities have been increased 66%. Lamp protection is assured by built-in interlock switching. Each control by built-in interiock switching. Each control switch is individually monitored for Kelvin meter reading. Outlets are controlled by numbered and color-coded pushbutton switches. The six-button Input Voltage Selector Switch permits adjustment for wide range of input voltages encountered around range of input voltages encountered around the world and provides intermediate output voltages when used with the Output Voltage Control Switches. Input pushbuttons are color-coded: Orange range from 95 to 125 volts input and Dark Blue range from 190 to 250 volts input. Eight-position Output Voltage Selector Switches provide illumination intensity. An interlock function is provided so that when the Off button has been operated, the 115 volt On button must be pushed before any of the boosted voltages may be applied to the lamps. This feature adds extra hours to the service life of the may be applied to the lamps. This feature adds extra hours to the service life of the lamps by providing a warm-up prior to boosting. By using the Input Voltage Selector Switch, the entire range of output voltages can be changed for a given input voltage. This will yield intermediate values of output voltage where required for fine adjustment. Using the controls in combination can yield up to 18 values of output tion can yield up to 18 values of output voltages. This will give steps of approxi-mately 3 volts or 25° Kelvin. Converters are housed in heavy gauge welded sheet steel enclosures provided with a hinged cover. Control panel is recessed to protect operating controls and meters against accidental damage when cover is open. Two large handles allow convenient carrying. Two-pole

circuit breaker provides protection against short circuits and long-time overload. The Mark II electrical system utilizes a ground (green) wire through the entire system as asafety feature. CINEMASTERS are available with Remote Control accessory wiring or in Explosion-proof housings on special



G9201 COLORTRAN CINEMASTER CHIEF CONVERTER MARK II (CCMC-II) is designed to control ten 500 watt PAR-64 lamps (3400°K) from 220 volt input with full duty cycle. This equals ten 5 K's or 50,000 watts of photographic light. Half the normal ampere consumption. Controls six 500 watt PAR-64 lamps (3400°K) from 120 volts. Six independently controlled outlets from 8-position pushbutton switches. Two 115 volt accessory outlets are provided. Ammeter indicates input current. Kelvin Meter. Measures 9" x 9½" x 13" and weighs 60 pounds. Operates with either 100/120 volts or 200/240 volts, single phase, 50/60 cycle AC, 50 amperes at maximum capacity.

G9202 COLORTRAN CINEMASTER CONVERTER MARK II (CCM-II) is designed to control eight 500 watt PAR-64 lamps (3400°K) from 220 volt input with full duty cycle. Equal to eight 5 K's or 40,000 watts of photographic light. Half the normal ampere consumption. Six outlets, two switch banks controls 3 outlets each. Lineload ammeter provided. Kelvin meter. Two 115 volt accessory outlets. Measures 9" x 9½" x 12" and weighs 50 pounds. Operates with either 100/120 volts or 200/240 volts, single phase, 50/60 cycle AC, 40 amperes at maximum capacity.

G9203 COLORTRAN CINEMASTER JUNIOR CONVERTER MARK II (CCMJ-II) answers demand for modular unit with same control features of larger Converters. Equals five K's or 25,000 watts of photographic light. Half the normal ampere consumption. Three outlets controlled by one eight-position pushbutton switch bank. Kelvin meter. One 115 volt accessory outlet provided. Measures 6¾ " x 9½ " x 9" and weighs only 30 pounds. Operates with either 100/120 volts or 200/240 volts, single phase, 50/60 cycle AC, 25 amperes at maximum capacity.

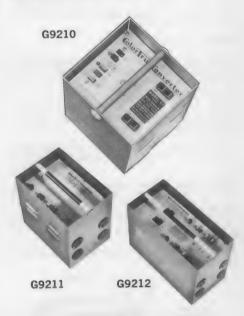
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G9205 COLORTRAN REMOTE CONTROL MOD-ULE Model RC is intended for use with the Cine-Master Chief Mark II or CineMaster Mark II Converters. When used in conjunction with either of these converters, it provides for remote operation of two independent circuits from "Low" (115 volts) to "High" (a preselected boosted voltage level). No external power supply is required. The continuous grounding circuit provided in the Mark II Converters is maintained in the Remote Control Module. Each circuit ("A" and "B") is capable of handling 3125 nominal lamp watts. (Note: Total nominal lamp wattage is obtained by adding up the total wattage of standard 120 volt lamps.) Three receptacles of the three blade twist type are provided for connecting lamps to each of the two circuits.



COLORTRU & COLORTRAN MARK II JUNIOR & SENIOR CONVERTERS

COLORTRU and the new redesigned MARK II JUNIOR and SENIOR CONVERTERS are for 120 volts only. They offer a superior design appearance and many new functional features. Like the CINEMASTERS they have color-coded pushbutton controls and an integral safety interlock so that lamps are "warmed up" on 120 volts prior to being boosted to their picture taking voltages. All units have 3 wire safety-grounded cable and twist type receptacles that meet all accepted electrical safety standards. Furnished with each converter is an adapter to permit using older 2 wire wall outlets. Heavy gauge steel cases, finished in baked silicone, have open tops and a recessed centered tubular carrying handle. Control panel is recessed for added protection.

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G9210 COLORTRAN COLORTRU (CT) permits use of any combination of normal 900 watts of ordinary household tungsten lamps. Increases intensity of lamps four times yet only consumes 15 amperes. Three color-coded pushbuttons allows operating lamps at standard voltage or boosted to 3200°K or 3400°K. Light intensity may be increased an additional eight times by using Colortran's scientifically designed Miro-Flectors. Measures 5½" x 55% x 9" and weighs only 15 pounds. Provides 1000 watts at 3200°K and 900 watts at 3400°K at 50% duty cycle.

G9211 COLORTRAN JUNIOR CONVERTER MARK II (CJ-II) is an ideal converter for use in lighting small motion picture sets and for portable location work. Current capacity is 120 volts at 20 amperes, permitting loads up to 1500 nominal watts. This allows up to 10 lamps rated at 150 watts each to be used. Three color-coded pushbuttons allows operating lamps at standard voltage or boosted to 3200°K or 3400°K. Unit has four twist-lock power outlets. Converter measures $5\frac{1}{2}$ " x $8\frac{3}{4}$ " x $7\frac{5}{8}$ " and weighs 19 pounds.

G9212 COLORTRAN SENIOR CONVERTER MARK II (CSR-II) is the most powerful unit available for 120 volt use. A split-load input allows deriving 30 amperes from either a single 30 ampere source or two individually fused 15 ampere sources. This maximum operational capacity of the converter to supply 2100 nominal watts can be utilized in situations where only low current circuits are available such as encountered on location in homes or offices. Six color-coded pushbuttons allows operating lamps at standard voltage or boosted to 3200°K or 3400°K. Unit has four twist-lock power outlets. Converter measures $5\frac{1}{2}$ " x $8\frac{3}{4}$ " x 11" and weighs $33\frac{1}{2}$ pounds.

COLOT TAN LIGHTS

COLORTRAN LIGHTS are designed and constructed to provide sturdiness, small size and light weight in various models that deliver the greatest illumination for the specific bulb when used with the COLORTRAN CONVERTER. All units are made of spun aluminum and steel. All castings, such as the yoke, are of aluminum. Knobs and handles are made of phenolic. Lights are provided with porcelain sockets, 3 wire grounded cable and heavy duty off-the-housing in-line switches. Rings and gel and scrim holders are made of top-quality tension-spring steel. All lamps have angled yokes that allow an almost vertical tilt for top or extreme down-angle lighting. All lights described are "Heads Only" except where furnished in Kits. Stands and accessories should be ordered separately.

G9260 COLORTRAN CINE KING (LCK) LIGHT accommodates both the PAR 64 and the PAR 56 lamps (available in wide flood, medium flood or narrow spot.) Light weight, heavy duty housing rotates through 360°. Insulated handle never gets hot. Convenient off-the-housing in-line switch. Universal retaining ring makes lamp replacement quick and easy. 20 ft. 3-wire grounded cable with twist-type 3-prong cap. (2-wire cable models also available.) The Cine King equals conventional 5000 watt studio spot light at ½ the cost, 1/9 the weight and ½ the ampere consumption. New tilted yoke design permits vertical down lighting. Lamp is 9 inches in diameter, 10 inches deep and weighs only 5½ pounds.

G9261 Barn door (BCK)

G9262 Single Scrim (DSS)

G9263 Double Scrim (DDS)

G9264 Gel Ring (DGH)

G9265 Diffusion & Gel Ring Holder (DGRH)

G9266 Daylight Blue Pyrex Lens with Retaining Ring (DBL)

G9267 Weatherproof Pyrex Lens Assembly (DWL)

G9268 Adapter from 3-twist Female to Parallel 2-blade Male, with Ground Pigtail (A3-2)



COLORTRAN SUPER-EIGHTY (LSE) LIGHT has tremendous intensity and coverage using the R-80 1500 watt reflector lamp. Its boosted illumination covers a 7 ft. diameter boosted illumination covers a circle from 10 ft. away with 940 foot candles. This performance is comparable to the largest and strongest lights in the incandescent field, such as the 10,000 watt studio spotlights. Uses only 13.7 amps from the Colortran Converter (220/240 volt input). The Super-Eighty is an ideal fill light for large groups of Colortran Cine King lights. This compact superflood will light industrial motion picture locations formerly impossible to illuminate with portable equipment. May be used on Colortran stands or hung from stage flat fittings. Lamp is 11 inches in diameter, 17 inches deep and weighs only $9\frac{1}{2}$ pounds.

G9226 Barn Doors (BSE)

G9227 Diffusion & Gel Ring Holder (DGRSE)

G9228 Single Scrim (DSSE)

G9229 Double Scrim (DDSE)

G9250 COLORTRAN KICKER (LK) LIGHT is a versatile auxiliary to the Cine King and Super Kicker Lights. Its smooth, medium power flood beam covers a 10 ft. diameter at 10 ft. with 125 foot candles. Mogul socket and standard base adapter. 20 ft. 3-wire grounded cable with in-line switch and twist-type 3-prong cap. Light is 7 inches in diameter and weighs only $2\frac{1}{2}$ pounds.

The Equipment You Want

For practical reasons, no catalog can possibly include all items in the Gordon Enterprises inventorylargest of its kind in the world. New and improved models . . . purchases and trade-ins of used products change stock continually. Thus, the camera, accessory or processor you want may be in Gordon warehouses right now - although it's not listed in these pages. The world's largest inventory of motion picture and photo instrumentation equipment is the logical place to find what you seek. You can be sure that Gordon Enterprises has what you want.

G9251 Barn Doors (BK)

G9252 Single Scrim (DSSK)

G9253 Double Scrim (DDSK)

G9254 Gel Ring (GRK)

G9255 Diffusion & Gel Ring Holder (GRHK)

G9256 Adapter from 3-twist Female to Parallel 2-blade Male, with Ground Pigtail (A3-2)

G9230 COLORTRAN CINE QUEEN (LCQ) LIGHT is an entirely new concept in Colortran Lighting. It was designed to fill special needs where a Converter power system may not be practical because (1) only DC input is available, (2) size or weight factors prohibits use of normal converter/lamp combinations, (3) necessary to simplify field wiring rigs on remote locations or facility has been set up for use of arcs or searchlights or (4) lights are subject to ex-tremely rough handling. The Cine Queen is of vented steel construction yet weighs only slightly more than an aluminum Cine King. The Cine Queen operates on normal 110 volt input without Converter Boost. Intensity and Kelvin temperature output is governed by the lamp filament design related to standard voltage, a refinement of the time-tested system used in photoflood lamps. A GE 1500 watt, 120 volt, 3350°K "Studio Wide Flood" Lamp (PAR 64 type) provides a beam pattern similar to the PAR 64, 500 watt Medium Flood Lamp, used on boost with the Cine King. Excellent performance as a medium range Key Light. Retains a high level of intensity with distance. The Cine Queen housing may also be used for boosting with normal rated lamps such as the PAR 56 or PAR 64. NOTE: The 1500 watt special Cine Queen Lamp is available in only one pattern and should not be used with high voltage converter power. Lamp is 9 inches in diameter, 91/4 inches deep and weighs only 7 pounds.

G9231 Barn Doors (BCK)

G9232 Diffusion & Gel Ring Holder (DGRH)

G9233 Single Scrim (DSS)

G9234 Double Scrim (DDS)

G9235 Gel Ring (DMR)

G9236 Daylight Blue Pyrex Lens with Retaining Ring (DBL)



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G9240 COLORTRAN SUPER KICKER (LSK) LIGHT provides more light over greater area than any other light of similar size. Its beam provides a powerful, smooth flood or fill light. Illuminates a 7 ft. diameter area at 10 ft. with 490 foot candles. Designed for use with up to R-60, 1000 watt lamp (mogul socket). Less powerful household lamps may also be used. 20 ft. 3-wire grounded cable with in-line switch and twist-type 3-prong cap. Light is 9 inches in diameter and weighs only 3¾ pounds.

G9241 Barn Doors (BSK)

G9242 Single Scrim (DSS)

G9243 Double Scrim (DDS)

G9244 Gel Ring (DMA)

G9245 Diffusion & Gel Ring Holder (DGRH)

G9246 Adapter from 3-twist Female to Parallel 2-blade Male, with Ground Pigtail (A3-2)

for TRIPODS see pages 24 through 28

G9285 COLORTRAN SINGLE SUPERIOR LIGHT (LSUS) features adjustable socket accommodating various mogul base lamps. Socket can be rotated to eliminate filament pattern. Will handle PS series lamps up to 1500 watts. 1000 watt PS 52 is recommended. Largest coverage single flood lamp. Excellent fill light. 15 ft. attached cord. Measures 16½ inches in diameter and 11 inches deep. Weight: 7½ pounds.

G9286 Barn Doors and Diffusion Holder (BSU)

G9287 COLORTRAN SUPER SIX LIGHT (LSV) will handle six, 150 watt or 200 watt, standard base lamps in MiroFlectors or PAR 38 or R-40 reflector-type lamps. For top power flood lighting and high speed movies. 15 ft. attached cord. Measures $16\frac{1}{4}$ inches in diameter and 11 inches deep. Weight: 6 pounds.

G9286 Barn Doors and Diffusion Holder (BSU)



G9270 COLORTRAN GROVERLIGHT SENIOR MARK II (LSR) LIGHT is a new improved model of the popular Senior Light. It is designed to furnish maximum control for illuminating small

areas with a flood or fill light. The unit accommodates 5 lamps with switches providing 2, 3 or 5 lamp selection. A variety of standard household lamps or reflector-type bulbs offer a vast choice of lighting effects. The new "deep design" allows use of the new M-6 ColorFlector, which results in the greatest possible light intensity from standard tungsten lamps. External springs incorporated in the new ColorFlector hold the reflector in exactly the right position with respect to the lamp, thus permitting use of any bulb. Bulbs may be changed without necessitating a change of reflectors. New type tilt-lock allows maximum tilting without danger of accidental tilt if not securely locked. Barn doors, diffusion slots and 15 ft. cord included. Light measures 14" x 14" x 8" and weighs 12 pounds.

G9271 Open Frame (for gels) (DSF)

G9272 Single Net (DSN)

G9273 Double Silk (DSND)

G9274 MiroFlector (M-5) for 150 watt A-23 lamp

G9275 ColorFlector (M-6) for 200 watt or large neck 150 watt lamp

G9276 COLORTRAN GROVERLIGHT JUNIOR MARK II (LJ) LIGHT is similar to above in all respects and accommodates 3 lamps. It is useful for small area fill or generator flood lighting. Light measures $13\frac{1}{2}$ " x 10" x $7\frac{1}{2}$ " and weighs 8 pounds.

G9277 Open Frame (for gels) (DJF)

G9278 Single Net (DJN)

G9279 Double Silk (DJD)

G9274 MiroFlector (M-5) for 150 watt A-23 lamp

G9275 ColorFlector (M-6) for 200 watt or large neck 150 watt lamp

G9295 COLORTRAN STRIP LIGHTS are available with 2 to 8 medium base porcelain sockets (please specify number desired). All sockets swivel for complete flexibility. May be mounted on stand or hung with chain from ceiling.

Color ran STANDS

COLORTRAN STANDS are constructed of tubular steel uprights with unbreakable T-locking handles. Aluminum leg braces reduce wavering action when stand is fully extended. Free-rolling rubber tired ball bearing casters are smoothly attached to leg ends to prevent marring furniture. Stands fold to 32 inches and extend to either $7\frac{1}{2}$ feet or 10 feet (please specify).



G9296 COLORTRAN SENIOR STAND with casters

G9297 COLORTRAN SENIOR BENT LEG STAND (without casters)

G9298 COLORTRAN HEAVY DUTY STAND

ColorTran MOTION PICTURE KITS

COLORTRAN MOTION PICTURE KITS feature a careful selection of the latest lighting equipment, powered by the all new CineMaster Chief Mark II Converter. These kits fill the needs of the Motion Picture Industry for efficient, light-weight, packaged lighting. The MAINLINE and STARLINE are basic kits, available at minimum cost. Accessories, cables, extra lights, and stands are optional. This allows individual selection to suit the cameraman's choice and requirements for key, fill, and background illumination. Basic lighting units do not use total converter capacity. Thus, supplementary lights may be added, or the input load may be split when operating from 110 volt, or fused primary circuits. Either MAINLINE or STARLINE kit may be used for studio, location, or in-plant lighting. New light weight cases offer complete portability, while providing a ruggedness allowing safe transport by camera car, or shipment by public carrier.



G5001

G5001 COLORTRAN KMPM MAINLINE MOTION PICTURE KIT consists of 1 CineMaster Chief Mark II Converter, 5 Cine King Lights, 1 Super Kicker Light, 2 Kicker Lights, 4 Senior Stands (with casters), 2 Senior bent leg stands (without casters), 2 gaffer grips in 3 fitted cases. Converter capacity 50 amperes. Ampere consumption of lights 43.4 from 200/240 volts input. Weight: 176 pounds.

G5002 COLORTRAN KMPMA MAINLINE ACCESSORY KIT is a complete selection of proper accessories for the Mainline Motion Picture Kit. It consists of 6 diffusion and gel ring holders for LCK and LSK lights, 2 diffusion and gel ring holders for LK lights, 6 barn doors for LCK and LSK lights, 2 barn doors for LCK inghts, 6 single scrims for LCK and LSK lights, 3 double scrims for LCK or LSK lights, 1 single scrim for LK lights, 1 double scrim for LK lights, 3 gel rings for LCK or LSK lights, 1 gel ring for LK light, in case with room for spare parts. Weight: 30 pounds.

G5003 COLORTRAN KMPMC MAINLINE CABLE KIT has power supply, distribution and light extension cables for flexible lighting arrangements with the Mainline Motion Picture Kit. It consists of one 25 ft. converter supply (power) cable, one 25 ft. light distribution cable with duplex outlet box, one 50 ft. light distribution cable with duplex box, one 25 ft. light distribution cable with 4 way box, four 25 ft. light extension cords in case. Weight: 50 pounds.

G5004 COLORTRAN KMPS STARLINE MOTION PICTURE KIT consists of 2 CineMaster Chief Mark II Converters, 10 Cine King Lights, 2 Super Kicker Lights, 2 Kicker Lights, 8 Senior bent leg stands (without casters), 4 Senior Stands (with casters), 2 gaffer grips in six fitted cases. Capacity of converters 100 amperes from 2 units. Ampere consumption of lights 77 from 200/240 volts input. Weight: 340 pounds.

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G5005 COLORTRAN KMPSA STARLINE ACCESSORY KIT is a complete selection of accessories for the Starline Motion Picture Kit. It consists of 12 diffusion and gel ring holders for LCK and LSK lights, 2 diffusion and gel ring holders for LK lights, 12 barn doors for LCK and LSK lights, 2 barn doors for LCK and LSK lights, 2 barn doors for LK lights, 12 single scrims for LCK and LSK lights, 6 double scrims for LCK or LSK lights, 1 single scrim for LK lights, 1 double scrim for LK light, 6 gel rings for LCK or LSK lights, 1 gel ring for LK light, in 2 cases with room for spare parts. Weight: 55 pounds.

G5006 COLORTRAN KMPSC STARLINE CABLE KIT has power, distribution and light extension cables specially selected for use with the Starline Motion Picture Kit. It consists of: two 25 ft. converter supply (power) cables, three 25 ft. light distribution cables with duplex outlet boxes, two 50 ft. light distribution cables with duplex boxes, one 25 ft. light distribution cables with 4 way box, four 25 ft. light extension cords in case. Weight: 78 pounds.

COLOTTAN INDUSTRIAL MOTION PICTURE KITS

G9301 COLORTRAN KMPI INDUSTRIAL MOTION PICTURE KIT consists of 2 CineMaster Mark II Converters, 2 Super-Eighty Lights, 4 Super Kicker Lights, 2 Cine King Lights, 8 Senior Stands (without casters), 1 Gaffer Grip in 5 Fitted Cases. Converter Capacity: 80 Amperes (2 units) Ampere Consumption of lights 73.6 (200/240 volts input)

G9302 COLORTRAN KMPIA INDUSTRIAL ACCESSORY KIT consists of 2 Diffusion & Gel Ring Holders for Super-Eighty Lights, 6 Diffusion & Gel Ring Holders for Cine King Lights and Super Kicker Lights, 2 Barn Doors for Super-Eighty Lights, 6 Barn Doors for Cine King Lights and Super Kicker Lights, 2 Single Scrims for Super-Eighty Lights, 2 Double Scrims for Super-Eighty Lights, 6 Single Scrims for Cine King Lights and Super Kicker Lights, 3 Double Scrims for Cine King Lights and Super Kicker Lights in 1 case with room for spare parts.

G9304 COLORTRAN KMPIC INDUSTRIAL CABLE KIT consists of two 25 ft. Converter Supply (power) Cables, two 50 ft. Light Distribution Cables, one 25 ft. Light Distribution Cable, one 50 ft. Light Distribution Cable, four 25 ft. Light Extension Cords in 1 case.

COLOTTAN MARK II SENIOR

COLORTRAN MARK II SENIOR & JUNIOR KITS are completely redesigned to include the new and improved MARK II CONVERTERS & LIGHTS. Kit includes one new Lightweight Carrying Case for lights and stands. Converter is self-contained and carried separately.

G9320 COLORTRAN GROVERLIGHT SENIOR KIT (KSR-II) consists of Mark II Converter, 2 Mark II Groverlight Senior Lights, 2 Senior Stands and Lightweight Case.

G9321 COLORTRAN GROVERLIGHT SENIOR KIT (KSRCM-II) consists of CineMaster Mark II Converter, 2 Mark II Groverlight Senior Lights, 2 Senior Stands and Lightweight Case.

G9322 COLORTRAN GROVERLIGHT SENIOR KIT (KSRCMC-II) consists of CineMaster Chief Mark II Converter, 2 Mark II Grovelight Senior Lights, 2 Senior Stands and Lightweight Case.

G9323 COLORTRAN GROVERLIGHT JUNIOR KIT (KJ-II) consists of Junior Mark II Converter, 2 Mark II Groverlight Junior Lights, 2 Senior Stands and Lightweight Case.

ColorTran LIGHT HEAD KITS

COLORTRAN LIGHT HEAD KITS are individual light kits and stand groups in convenient traveling cases. Series "A" with accessories, Series "B" without accessories.

G5007 COLORTRAN CINE KING KIT — A (KLCKH) consists of 4 Cine King Lights, 2 barn doors, 4 diffusion and gel ring holders, 2 single scrims, 2 double scrims in 2 fitted cases. Weight: 53 pounds.

G5008 COLORTRAN CINE KING KIT — B (KLCK) consists of 4 Cine King Lights, in fitted case. Weight: 35 pounds.

G5009 COLORTRAN CINE KING/SUPER KICKER KIT — A (KLC/SKH) consists of 2 Cine King Lights, 2 Super Kicker Lights, 3 barn doors, 4 diffusion and gel ring holders, 3 single scrims, 3 double scrims, in 2 fitted cases. Weight: 52 pounds.

G5010 COLORTRAN CINE KING/SUPER KICKER KIT - B (KLC/SK) consists of 2 Cine King Lights and 2 Super Kicker Lights in fitted case. Weight: 32 pounds.

G5011 COLORTRAN KICKER KIT — A (KLKH) consists of 4 Kicker Lights, 2 barn doors, 4 diffusion and gel ring holders, 2 single scrims, 2 double scrims, in 2 fitted cases. Weight: 41 pounds.

G5012 COLORTRAN KICKER KIT - B (KLK) consists of 4 Kicker Lights in fitted case. Weight: 24 pounds.

Color Tran STAND KITS

G5013 COLORTRAN STAND KIT (KSC-4) consists of 4 Senior Stands, with casters, in fitted case. Weight: 39 pounds.

G5014 COLORTRAN STAND KIT (KSC-6) consists of 6 Senior Stands, with casters, in fitted case. Weight: 53 pounds.

G5015 COLORTRAN STAND KIT (KSBL-4) consists of 4 Senior bent leg stands, without casters, in fitted case. Weight: 35 pounds.

G5016 COLORTRAN STAND KIT (KSBL-6) consists of 6 Senior bent leg stands, without casters, in fitted case. Weight: 47 pounds.

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Color ran CUSTOM CABLES

COLORTRAN CUSTOM CABLES are manufactured to the high standards of all COLORTRAN equipment, these cables are designed for use with COLORTRAN Converters and lights.

MAIN FEEDER CABLES

Cables MFC-1 thru MFC-4 may be used with one or two CINEMASTER CHIEF MARK II converters at full load. Power connectors are offered in choice of either battery clamps or bus bar lugs. Both connector types are available in either 25 or 50 foot lengths (please specify).

NOTE: Codes MFC-5 thru MFC-8 with three receptacle boxes, may be used with other converter combinations at full or partial loads not to exceed 100 amp cable capacity.



G9001 MFC-1 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 25 ft. long. CONNECTORS: 3 battery clamps. BOX: 2 female 3 wire, twist-type receptacles.



G9002 MFC-2 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 25 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp. BOX: 2 female 3 wire, twist-type receptacles.

G9003 MFC-3 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 50 ft. long. CONNECTORS: 3 battery clamps. BOX: 2 female 3 wire, twist-type receptacles.

G9004 MFC-4 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 50 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp. BOX: 2 female 3 wire, twist-type receptacles.



G9005 MFC-5 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 25 ft. long. CONNECTORS: 3 battery clamps. BOX: 3 female 3 wire, twist-type receptacles.



G9006 MFC-6 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene 25 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp. BOX: 3 female 3 wire, twist-type receptacles.

G9007 MFC-7 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 50 ft. long. CONNECTORS: 3 battery clamps. BOX: 3 female 3 wire, twist-type receptacles.

G9008 MFC-8 CAPACITY: 100 Amps. CABLE: #6/3 Neoprene, 50 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp. BOX: 3 female 3 wire, twist-type receptacles.



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CONVERTER SUPPLY CABLES

Codes CSC-1 and CSC-2 are to be used to connect one CINEMASTER MARK II, or one CINEMASTER CHIEF MARK II Converter to Main Feeder Cables. Code CSC-3 thru CSC-6 are to be used to connect converters directly to input power source with battery clamps or bus bar lugs.

IMPORTANT: Specify 40 Amp capacity cables for CINEMASTER MARK II Converters and 60 Amp capacity cables for CINEMASTER CHIEF MARK II Converters. Code CSC cables are 25 ft. long. They can be combined to make 50 ft. lengths without appreciable line loss.



G9009 CSC-1 CAPACITY: 40 Amps. CABLE: #10/3, 25 ft. long. CONNECTOR: 1 male 3 wire twist-type cap and 1 female 3 wire twist-type-receptacle.

G9010 CSC-2 CAPACITY: 60 Amps. CABLE: #8/3, 25 ft. long. CONNECTORS: 1 male 3 wire twist-type cap and 1 female 3 wire twist-type receptacle.



G9011 CSC-3 CAPACITY: 40 Amps. CABLE: #10/3, 25 ft. long. CONNECTORS: 3 battery clamps and 1 female 3 wire twist-type receptacle.

G9012 CSC-4 CAPACITY: 60 Amps, CABLE: #8/3, 25 ft. long. CONNECTORS: 3 battery clamps and 1 female 3 wire twist-type receptacle.



G9013 CSC-5 CAPACITY: 40 Amps. CABLE: #10/3, 25 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp, 1 female 3 wire twist-type receptacle.

G9014 CSC-6 CAPACITY: 60 Amps. CABLE: #8/3, 25 ft. long. CONNECTORS: 2 bus bar lugs, 1 grounding clamp, 1 female 3 wire twist-type receptacle.

LIGHT DISTRIBUTION CABLES

Used to establish plug-in junction points for COLORTRAN lights. All male caps fit output receptacles of MARK II series CINEMASTER Converters. Plug-in boxes and female receptacles accept 3 wire light cords and code LEC Light Extension Cords.



G9015 LDC-1 CAPACITY: 15 Amps. CABLE: #16/3, 25 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 2 female 3 wire twist-type receptacles.

G9016 LDC-2 CAPACITY: 15 Amps. CABLE: #16/3, 50 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 2 female 3 wire twist-type receptacles.

G9017 LDC-3 CAPACITY: 20 Amps. CABLE: #14/3, 25 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 2 female 3 wire twist-type receptacles.

G9018 LDC-4 CAPACITY: 20 Amps. CABLE: #14/3, 50 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 2 female 3 wire twist-type receptacles.



G9019 LDC-5 CAPACITY: 20 Amps. CABLE: #14/3, 25 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 4 female 3 wire twist-type receptacles.

G9020 LDC-6 CAPACITY: 20 Amps CABLE: #14/3, 50 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. BOX: 4 female 3 wire twist-type receptacles.

LIGHT EXTENSION CORDS

Male connectors (Caps) of these cords will fit Output Receptacles of MARK II series CINEMASTER Converters and Receptacles of Code LDC Light Distribution Cables. Female connectors (Receptacles) will accept all 3 wire COLORTRAN light cords. NOTE: LEC cords can be combined to a

NOTE: LEC cords can be combined to a length of 50 feet without appreciable line voltage loss.



G9021

G9021 LEC CAPACITY: 15 Amps. CABLE: #16/3, 25 ft. long. CONNECTOR: 1 male 3 wire twist-type cap. 1 female 3 wire twist-type receptacle.

G9022 A 3-2 Adapted from 3-twist Female to Parallel 2 blade Male, with Ground Pigtail.

Color Tran LIGHTWEIGHT CASES

COLORTRAN LIGHTWEIGHT CASES are constructed of heavy fibre, treated for weather resistance and incorporating foam rubber padding to protect the equipment. Metal corners, rivets and locks are rust-proof. Sturdy, hand-contoured, carrying handle provided. These cases are designed for utmost ruggedness and lightest weight.



G9305

G9305 COLORTRAN COMBINATION LIGHT CASE (FC-1) for 2 Cine King and 2 Super Kicker Lights. Measures 42" x 11" x 15" and weighs 13 pounds.

G9306 COLORTRAN LIGHT CASE (FC-2) for 4 Kicker Lights. Measures $32\frac{1}{2}$ " x 9" x $12\frac{1}{2}$ " and weighs 9 pounds.

G9307 COLORTRAN LIGHT CASE (FC-3) for 2 Groverlight Senior Lights and 2 Stands plus space for spare lamps and cords. Measures $36'' \times 16\frac{1}{2}'' \times 17^{3}\!\!/_{4}''$ and weighs $19\frac{1}{2}$ pounds.

G9308 COLORTRAN LIGHT CASE (FC-4) for 2 Groverlight Junior Lights and 2 stands space for spare lamps and cords. Measures 33" \times 16 $\frac{1}{2}$ " \times 17 $\frac{3}{4}$ " and weighs 18 pounds.

G9309 COLORTRAN LIGHT CASE (FC-5) for 2 Super-Eighty Lights. Measures 27" x $12\frac{1}{2}$ " x 17" and weighs 12 pounds.

G9310 COLORTRAN LIGHT CASE (FC-6) for 1 Groverlight Superior Single or 1 Groverlight Superior Six Light. Measures 21" x 19" x 14" and weighs $10\frac{1}{2}$ pounds.

G9311 COLORTRAN LIGHT OR STAND CASE (FC-7) for 4 Cine King Lights or 4 Cine Queen Lights. Or for 6 Senior Stands or 6 Senior Bent Leg Stands. Measures 38½" x 10" x 14" and weighs 11 pounds.

G9312 COLORTRAN STAND, CABLE OR MISC-ELLANEOUS CASE (FC-8) for 4 Senior Stands or 4 Senior Bent Leg Stands. Or for assorted cables or miscellaneous equipment. Measures 39" x 11½" x 9" and weighs 10 pounds.

G9313 COLORTRAN LIGHTING ACCESSORY CASE (FC-9) for ColorTran lighting accessories and/or spare lamps. Measures 29" x 10½" x 11" and weighs 8 pounds.

COLOTTAN GAFFER GRIPS

COLORTRAN GAFFER GRIPS are constructed of cast aluminum with powerful clamping jaws. They can be used to support lighting equipment in locations where it is not practical to use stands. Jaws are studded with permanently affixed high friction rubber grips which cannot be accidently removed and lost and will not mark gripped surface even after prolonged usage. Specially fitted spring-loaded ball joint swivels in any direction and will not lose its locking action with use. (See photo showing cross section view of construction.) Gaffer Grips are available in various models, both with and without sockets and cords, and with studs to fit any lamp.



G9555 GAFFER GRIP (GAG) has $\frac{5}{6}$ inch stud which will support lights of largest ColorTran size, baby spotlights, or flags, etc.

PHOTO INSTRUMENTATION

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G9556 1/2 inch stud

G9557 3/8 inch stud

G9558 GAFFER GRIP (GBG) has a universal swivel mount plus V holder for either mogul or standard sockets.

G9559 GAFFER GRIP (GBGM) is equipped with mogul porcelain socket and standard adapter socket and 15 feet of #16 3-wire cord with "U" blade receptacles and 2 flat male adapters.

G9560 GAFFER GRIP (GBGS) is equipped with medium porcelain socket and 15 feet of #16 3-wire cord with "U" blade receptacles and 2 flat male adapters.

NOTE: Please specify 3 conductor twist male caps if required to fit ColorTran Mark II Converters.

COLORTRAN GOBO ADAPTERS

G9325 COLORTRAN GOBO ADAPTER (GBS): $2\frac{1}{2}$ inch in diameter, fits $\frac{5}{8}$ inch stand and accommodates 5/16 inch rod or boom.

G9326 COLORTRAN GOBO ADAPTER (GBM): $3\frac{1}{2}$ inch in diameter, fits $\frac{5}{8}$ inch stand and accommodates $\frac{1}{4}$ inch and $\frac{5}{8}$ inch rods.

G9327 COLORTRAN GOBO ADAPTER (GBL): 4 inch in diameter, fits $\frac{5}{6}$ inch stand and accommodates $\frac{3}{4}$ inch rod or boom.

COLORTRAN FRAMES, FLAGS, NETS, ETC.

G9328 COLORTRAN FRAME ONLY (GO): 18" x 12". One end open for attaching silks, etc.

G9329 COLORTRAN FRAME ONLY (GC): 18" x 12". Closed end for Flags, Spun Glass, etc.

G9330 COLORTRAN FLAG (SOLID) (GF). $18" \times 12"$. Black felt sewn to closed frame.

G9331 COLORTRAN SILK (GSC): 18" x 12" Silk sewn to closed frame.

G9332 COLORTRAN SILK (GSO): 18" x 12" Silk sewn to open end frame.

G9334 COLORTRAN BOOM ROD (GB): 5/8 inch diameter, 3 feet long, for holding frames off stand.

COLORTRAN HEAT FILTERS

COLORTRAN HIGH ABSORPTION HEAT FILTER eliminates up to 90% of all radiated heat from all light sources, tungsten, arc, pulsed neon, etc. Light transmission exceeds 85%. Maintains proper color temperature. Raises Kelvin only 100°. Ideal for protection of heat sensitive materials and objects (plants, film, etc.). Provides cool comfort in motion picture and television shooting. Keeps slides and motion picture films cool when projected with high-intensity arcs or high-wattage tungsten bulbs on large screens.

G9351 COLORTRAN HEAT FILTER LENS for Cine King LCK

G9352 COLORTRAN HEAT FILTER LENS for Cine Queen LCK

G9353 COLORTRAN HEAT FILTER LENS for Super-Eighty LSE

G9354 COLORTRAN HEAT FILTER LENS for 5K Studio Spotlight

G9355 COLORTRAN HEAT FILTER LENS for 10K Studio Spotlight

NOTE: Other sizes on special order.

PERFORMANCE CHART OF LAMPS BOOSTED WITH ColorTran

					y at 10 Feet	
Lamp	Voltage Setting	220V Input	120V Input	Foot Candles	Coverage	Application
PAR64 500 W Wide Flood	120 160 185	2.5 4.0 4.9	4.7 7.4 9.1	115 300 450	4' x 5'	Main source of "Key" light equal to a 5000 W studio light at wide flood. Use in CineKing light.
PAR64 500 W Medium Flood	120 160 185	2.5 4.0 4.9	4.7 7.4 9.1	370 870 1400	2' x 4½'	"Key" light equal to a 5000 W studio light at medium flood. Use in CineKing light.
PAR64 500 W Narrow Spot	120 160 185	2.5 4.0 4.9	4.7 7.4 9.1	1200 2720 3750	1½' x 2'	Spot light stronger than a 5000 W studio light at spot. Use in CineKing light.
PAR64 1500 W Wide Flood 3350°K	120 Volt ONLY		12.0	1500	2½° x 4°	High Intensity where Converter Power is not practical; or only DC power is available.
PAR56 300 W Wide Flood	120 160 185	1.4 2.2 2.8	2.6 4.3 5.4	90 230 350	3' x 7'	"Key" or main source light. Use in CineKing light.
PAR56 300 W Medium Flood	120 160 185	1.4 2.2 2.8	2.6 4.3 5.4	242 620 870	1½′ x 3½′	"Key" or main source light. Use in CineKing light.
PAR56 300 W Narrow Spot	120 160 185	1.4 2.2 2.8	2.6 4.3 5.4	880 2050 2950	1½′ x 1½′	"Key" or main source light. Use in CineKing light.
R-80 1500 W Flood	120 160 185	7.0 10.9 13.7	12.8 20.0 25.1	230 610 940	7' Dia.	Ideal fill light for large group of CineKing "Key" lights.
R-60 1000 W Flood	120 160 185	4.7 7.4 9.1	8.7 13.7 16.7	166 345 490	Dia.	Smooth even fill light. Gives effect of a cone light. Use in Super Kicker.
R-40 500 W Flood	120 160 185	2.5 4.0 4.9	4.7 7.4 9.1 2.6	82 125 26	Dia.	Smooth, even fill light. Use in Kicker light. Smooth fill light. Use
R-40 300 W Flood	120 160 185	2.2 2.8 0.7	4.3 5.4 1.3	67 99	Dia. 8½'	in Kicker light. Smooth fill light. Use
R-40 150 W Flood	120 160 185	1.1	2.0	31 49	Dia.	in Senior, Junior or Kicker Lights, and Superior-6 light.
PAR38 Flood	120 160 185	.61 1.11 1.35	2.02	37 93 150	5½' x 5'	"Key" and fill. Junior, Senior and Superior-6 lights.
A-23 I.F. 150 W in M-5 Miro- flector	120 160 185	0.7 1.1 1.4	1.3 2.0 2.5	30 67 113	4½' Dia.	Even, fill light. Use in Senior, Junior, Kicker and Superior-6 lights.
Groverlight Junior (3 lamps) A-23 I.F. 150 W with M-5 Miroflector	120 160 185	2.1 3.3 4.2	3.9 6.3 7.5	66 180 250	5' Dia.	Smooth Fill
Par38 (3 lamps) 150 W Flood	120 160 185	2.1 3.3 4.2	3.9 6.3 7.5	90 235 330	4½' x 4'	Light
R-40 (3 lamps) 150 W Flood	120 160 185	2.1 3.3 4.2	3.9 6.3 7.5	33 87 145	10' × 10'	
Groverlight Senior (5 lamps) A-23 l.F. 150 W with M-5 Miroflector	120 160 185	3.5 5.5 7.0	6.5 10.5 12.5	140 350 435	5' Dia.	Smooth Fill
PAR38 (5 lamps) 150 W Flood	120 160 185	3.5 5.5 7.0	6.5 10.5 12.5	180 440 610	6½' Dia.	Light
R-40 (5 lamps) 150 W Flood	120 160 185	3.5 5.5 7.0	6.5 10.5 12.5	60 160 220	10' Dia.	

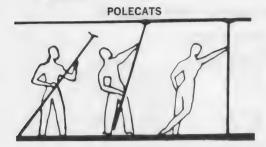
NOTE: By definition, the area covered by a light is that area which has 50% or less fall-off from the most intense area. It can be readily seen that the outer edges are further away from the light source than the center.



MOTION PICTURE EQUIPMENT

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lighting accessories



THAT'S IT! PUSH UP ... ADJUST ...

POLECATS are light weight telescoping columns of $1\frac{1}{2}$ inch anodized aluminum with an expansion spring in the top. They are simply adjusted to ceiling height with a locking collar and then sprung into position. Ends are protected with rubber pads. Poleste take up less floor space than a silver cats take up less floor space than a silver dollar. They may be used in either a vertical (floor to ceiling) or horizontal (wall to wall) position, to hold lights, drapes, less paper, etc. Two vertical Polecats and a crossbar will hold up a roll of Seamless paper. Side Arm Brackets with 3/4 inch or paper. Side-Arm Brackets with 78 inch of 1/2 inch studs will accommodate all popular types of lights. A Boom Light Holder can be swung from a Polecat to reach the center of a 12 foot set. Many types of cross bars, of a 12 foot set. Many types of cross bars, clips, brackets and shelf supports increase the Polecat's versatility. Polecats are constructed in a vast variety of types and lengths. Models are available that separate into two sections for transportation in a station wagon. NOTE: The top section of each telescoping Polecat is 13/6 inch in diameter. The lower section is 11/2 inch in diameter. When ordering fittings please specify if required for upper or lower section. brackets and shelf supports increase specify if required for upper or lower section of pole.

G9360 HD-15 POLECAT is adjustable for ceilings from 81/2 feet to 15 feet. Length of lower section: 8 feet.

G9361 HD-11 POLECAT is adjustable for ceilings from 61/2 feet to 11 feet. Length of lower

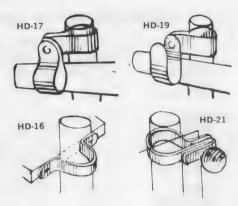
G9362 HD-9 POLECAT is adjustable for ceilings from $6\frac{1}{2}$ feet to $9\frac{1}{2}$ feet. Length of lower sec-

G9363 HD-7 POLECAT is adjustable for ceilings from $8\frac{1}{2}$ feet to $11\frac{1}{2}$ feet. Separates into two $4\frac{1}{2}$ foot sections for easy transportation.

G9364 HD-24 POLECAT CROSS BAR is 11/2 inch in diameter and 4 feet long.

G9365 HD-25 POLECAT CROSS BAR is 11/2 inch in diameter and 8 feet long.

G9366 HD-26 POLECAT CROSS BAR is 11/2 inch in diameter and 12 feet long.



G9367 HD-17 POLECAT CROSS BAR MOUNT is a clamp for attaching a cross bar to lower section of pole.

G9368 HD-18 POLECAT CROSS BAR MOUNT is a clamp for attaching a cross bar to upper section of pole.

HD-19 POLECAT CROSS BAR MOUNT is G9369 a hook for holding a cross bar on lower section

G9370 HD-20 POLECAT CROSS BAR MOUNT is a hook for holding a cross bar on upper section of pole.

HD-23 POLECAT SHELF SUPPORT is a cast aluminum fitting with "L" plate for supporting heavy shelves, tables, etc.

G9372 HD-21 POLECAT PHOTO CLIP is a 1/8 inch side clamp for lower section only.

G9373 HD-27 POLECAT PEG BOARD is an adjustable panel clamp for panels from 1/8 inch to 1 inch thick.

G9374 C-1 POLECAT LIGHT SUPPORT is a clamp with a 1/2 inch stud for holding lights on

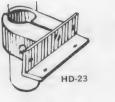
G9375 HD-30 POLECAT LIGHT BRACKET is for holding lights on vertical section. Has 3/8 and 1/2 inch studs to accommodate most popular

HD-22 POLECAT MOUNT is a cast aluminum fitting with flat plate for mounting cabinets, partitions, etc.

G9377 HD-16 POLECAT "U" CLAMP may be used on lower section of pole.

G9378 HD-28 POLECAT HALF CLAMP may be

G9379 HD-29 POLECAT HALF CLAMP may be mounted on upper section.









G9380 HD-31 POLECAT BOOM LIGHT HOLDER is 8 feet long. Has $\frac{3}{8}$ inch and $\frac{1}{2}$ inch studs and will support a COLORTRAN light or a Baby Spot Light. Raises or lowers quickly and easily and may be swung in a full circle.

HD-32 POLECAT CLIP & CORD SET provides 10 feet of cord and two clips for suspending paper, drapes, tracing cloth, etc. for background or allows building tent around subject.

G9382 HD-32L POLECAT CLIP & CORD SET is same as above with 20 feet of cord

G9383 HD-33 POLECAT FOOT PLATE is a steel and neo-cork plate that prevents Polecat from

EXPLOSION-PROOF EQUIPMENT -

NOTE: COLORTRAN CINE KING LIGHTERS AND MARK II CINEMASTER CONVERTERS can be supplied on special order in explosion proof designs for use in explosive at-mospheres such as hospital operating rooms, mines, missile fuel handling areas, or any similar environment where coal dust, or hazardous vapors exist, which could be accidentaly detonated by an electric spark. Each individual light unit is engineered for hazardous environmental use and will produce the equivalent of 5000 watts of usable photographic light when used as part of the system. The equipment meets the following military specifications: MIL-E-5272C, Explosion Resistant for Procedure graph 4.13.4-4.13.3(a); maximum altitude of 10,000 feet. Lights may be used with or without converters and made up in single units, 2 or 3 light combinations or clusters of 9 or more lights to meet any filming or work light situation. This equipment has been designed to fulfill stringent require-ments of the Military, Bureau of Mines and Underwriter Laboratories. Write for complete data and state size and type of area you wish to illuminate.

the ONE source for motion picture and photo instrumentation equipment

PHOTO INSTRUMENTATION

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LAMPS FOR MOTION PICTURE SET LIGHTING

GENERAL ELECTRIC OR WESTINGHOUSE (AVAILABLE IN STANDARD VOLTAGES)

NOTE: PLEASE ORDER BY GORDON ENTERPRISES STOCK NUMBER

ORDER	WATTS	CODE	BULB	BASE	HRS.	COLOR TEMP.
NO . G7001	50	PH/50T8/22DC	T-8	D.C. Bayonet	50	2850°K
G7002	75	PH/75T8/106	T-8	D.C. Bayonet	50	2925°K
G7003	100	PH/100T8/108DC	T-8	D.C. Bayonet	50	2975°K
G7004	150	PH/150T8/79	T-8	D.C. Bayonet	25	3075°K
G7005	200	PH/200T8/DC	T-8	D.C. Bayonet	25	3075°K
G7006	200	PH/200T10/5DC	T-10	D.C. Bayonet	25	3100°K
G7007	500	PH/500/PS25/5	PS- 25IF	Medium Screw	60	3200°K (3)
G7008	500	500IF	P-40	Mogul Screw	1000	3000°K (3)
G7009	500	500 (Clear)	PS-40	Mogul Screw	1000	3000°K
G7010	500	500T20/63	T-20	Medium Bipost	35	3200°K
G7011	500	500T20/60	T-20	Medium Bipost	8	3350°K
G7012	750	750/IF	PS-52	Mogul Screw	1000	3000°K (3)
G7013	750	750 (Clear)	PS-52	Mogul Screw	1000	3000°K
G7014	750	750T24/16	T-24	Medium Bipost	50	3200°K (6)
G7015	750	750T24/13	T-24	Medium Bipost	12	3350°K
G7016	1,000	1000/SBIF	PS-52	Mogul Screw	1000	3050°K (4) (5)
G7018	1,000	1000/IF	PS-52	Mogul Screw	1000	3050°K (3)
G7019	1,000	1M/T24/13	T-24	Medium Bipost		3350°K
G7020	1,000	PH/IM/PS40/1	PS-40	Mogul Screw	60	3200°K
G7021	1,000	1M/G48/8	G-48	Mogul Bipost	100	3150°K
G7022	1,000	1M/PS52/77	PS-52	Mogul Screw	75	3200°K
G7023	1,500	1500PS52/79	PS-52	Mogul Screw	100	3200°K (3)
G7024	1,500	1500PS52/78	PS-52	Mogul Screw	100	3200°K (2)
G7025	2,000	2M/PS52/76	PS-52	Mogul Screw	15	3350°K (1)
G7026	2,000	2M/G48/18	G-48	Mogul Bipost	100	3200°K
G7027	2,000	2M/G48/14	G-48	Mogul Bipost	25	3350°K
G7028	2,000	2M/T48/1	T-48	Mogul Bipost	100	3200°K (1)
G7029	2,000	2M/T48/4	T-48	Mogul Bipost	25	3350°K (1)
G7030	5,000	5M/G64/7	G-64	Mogul Bipost	150	3200°K (1) (6)
G7031	5,000	5M/G64/3	G-64	Mogul Bipost	75	3350°K (1)
G7032	5,000	5M/T64/3	T-64	Mogul Bipost	150	3200°K (1
G7033	5,000	5M/T64/1	T-64	Mogul Bipost	75	3350°K (1) (6)
G7034	10,000	10K/G96	G-96	Mogul Bipost	75	3350°K (1) (6)

(1) Tungsten Cleaning Powder. (2) Clear Flood. (3) Inside Frosted. (4) Silver Bowl Inside Frosted. (5) Burn base up in porcelain socket. (6) Heat-resisting glass bulb.

	PHOTOFLOOD & REFLECTOR PHOTO LAMPS											
ORDER NO.	CODE	TYPE	COL	w	BULB	BASE	HRS. LIFE	COLOR TEMP.				
G7050	PH/RSP-2	Refl. Spot	White	500	R-40	Med.	6	3400°K (2)				
G7051	PH/RFL-2	Refl. Flood	White	500	R-40	Medi	6	3400°K (2)				
G7052	PH/375/34R4	Reflector	White	375	R-40	Med.	4	3400°K (4)				
G7053	PH/375/R30	Reflector	White	375	R-30	Med.	4	3400°K (4)				
G7054	PH/300/R30	Reflector	White	300	R-30	Med.	4	3400°K (4)				
G7055	PH/250A21/54	Photoflood	White	250	A-21	Med.	10	3400°K (5)				
G7056	PH/B4	Photoflood	Blue	1000	PS-35	Mogui	10	4800°K (3)				
G7057	PH/B2	Photoflood	Blue	500	PS-25	Med.	6	4800°K (2)				
G7058	PH/B1	Photoflood	Blue	250	A-21	Med.	3	4800°K (1)				
G7059	PH/4	Photoflood	White	1000	PS-35	Mogul	10	3400°K (3)				
G7060	PH/2	Photoflood	White	500	PS-25	Med.	6	3400°K (2)				
G7061	PH/1	Photoflood	White	250	A-21	Med.	3	3400°K (1)				
G7062	PH/500/32R7	Reflector	White	500	R-40	Med.	15	3200°K				

(1) Fusing requirement: $2\frac{1}{2}$ amps. (2) Fusing requirement: 5 amps. (3) Fusing requirement: 10 amps. (4) Fusing requirement: 3 amps. (5) 30 volts for newsreel battery operation.

MILITARY QUALITY CONTROL. All Gordon Enterprises' plants are operated under approved U.S. Government Quality Control to Military Specifications. The same standards and inspection procedures apply to all equipment and services supplied to motion picture studios, commercial photographers, cinematographer, research laboratories and private industry.

GENERAL ELECTRIC "WHITE BULBS"

These are inside white silica coated bulbs. Excellent diffusion. No need for scrims. May be used in Scoops or Broads.

ORDER NO.	CODE	WATT	BULB	BASE	HRS. LIFE	COLOR TEMP.	
G7040	1500/1W	1500	PS-52	Mogul	1000	2850°K	
G7041	1000/1W	1000	PS-52	Mogul	1000	2800°K	
G7042	750/1W	750	PS-52	Mogul	1000	2750°K	

GENERAL ELECTRIC HIGH-SPEED PHOTOGRAPHY REFLECTOR BULB ORDER NO. CODE WATTS VOLTS BULB HRS. LIFE BASE DESCRIPTION G7045 PH/750R 750 120 R-40 34 Med. Reflector Photo (2)

(2) For intermittent burning. Use in porcelain sockets.

ı	44.5	WESTINGHOUSE HIGH-SPEED THOTOGRAFITI REFEEDOR DEEDS											
	G7065	PH/300R	300	115	R-30	4	Med	Reflector Photo (1) (2)					
1	G7066	PH/300R/1	300	28	R-30	4	Med.	Reflector Photo (1) (2)					

WESTINGHOUSE HIGH SPEED PHOTOGRAPHY DEELECTOR BILL RS

(1) Neck outside opaque coated. (2) For intermittent burning. Use in porcelain sockets.

for index of products, manufacturers, trade names, see pages 125-128.



MOTION PICTURE EQUIPMENT

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LABORATORY PROCESSORS

16MM/35MM/70MM ANA-TEC MULTIMATIC FILMASTERS can handle any basic processing job with maximum ease and efficiency. All Filmasters have stop-start butciency. All Filmasters have stop-start but-tons at both ends of the machine for easy operation. All components are individually accessible. Unit construction and folded edges on all exposed parts eliminate the possibility of getting cut or abraded while servicing or cleaning the machine. Every part in every Filmaster model is carefully designed to provide the best possible film processing techniques with the easiest and most economical method of production. Direct reading indicators are conveniently located on Filmaster control panels next to the controls themselves. Filmasters smooth, efficient daylight operation by providing any machine with loading magazine attachable Portamaster Darkroom, or without attachments so it can be fed directly from any darkroom. Multi-Matic Filmasters have two important safeguards against film tension. High quality, unbreakable plastic spools are specially designed to prevent scorching and scalloping, and full-floating, nonpulsing clutches regulate film tension and help insure continuous run and long life. Non-aerating, leakproof, circulating-turbulating chemical pumps and solution replenishers are custom designed. Automatic hold-over temperature control maintains the temperature when the rest of the machine temperature when the rest of the machine is shut off thus permitting operator to begin processing film immediately. Proportioning re-circulating dry box air makes possible low temperature drying under relatively high humidity conditions. Please specify film width or combinations of film widths desired. We also provide custom machines for special requirements. Please state power requirements when ordering.



06014 PORTAMASTER DARKROOM PMD-700 series is designed as a complete attachable portable darkroom that can be used for the same operations as any standard darkroom.

06010 MULTIMASTERS MM-100 series handles 16mm, 35mm or 70mm film or combinations of 16mm and 35mm or 35mm and 70mm. They can produce black and white positives, negatives or reversals.

06011 COLORMASTERS CM-200 series can process color positives, negatives and Ektachrome, Anscochrome and Kodachrome reversals with no major adjustments or tools. They can handle 16mm, 35mm or 70mm film or a combination of 16mm and 35mm.

06012 TRACKMASTERS TM-300 series are special high speed machines for use at race tracks or other events requiring immediate results. Available in 16mm, 35mm or combination of 16mm and 35mm.

06013 ARCHIVAL MICROMASTERS AMM-400 series are the leaders in the field of microfilm processing. They meet all government standards

for archival quality and can handle 16mm, 35mm or 70mm or combination of 16mm and 35mm or 35mm and 70mm.

06015 MOBILMASTER MM-500 series provides a complete trailer unit that can be adapted to process any black and white, color or microfilm with all the same outstanding features as the standard models.

O6020 MICROFILM MODEL 401 has output of 3000 feet of film per hour in 16/35mm combination. Straight 16mm version will process 5580 feet of film per hour. Development time is 3 minutes.

06021 MICROFILM MODEL 402 has output of 1740 feet of film per hour in 16/35mm combination. Straight 16mm version will process 3240 feet of film per hour. Development time is 3 minutes.

O6022 MICROFILM MODEL 403 has output of 870 feet of film per hour in 16/35mm combination. Straight 16mm version will process 1620 feet of film per hour. Development time is 3 minutes.

please remember

. . . while this is the most complete catalog of motion picture and photo instrumentation equipment ever published, it cannot possibly include every photographic item in the Gordon Enterprises' inventory — the world's largest and most complete. If the particular product you seek — new or used — is not listed in these pages, please ask our Sales Service Department.



O5056 AUTOMATIC TRI-FILM PROCESSOR designed and built by Canadian Applied Research Limited of Toronto. Develops and dries any type of black and white negative or positive 16mm, 35mm or 70mm motion picture film at speeds up to 6 feet a minute. With the standard 400 ft. capacity magazine, four 16mm films can be handled simultaneously, or two 35mm, or one 70mm film. Only two minutes are required to adjust dividers to accommodate the various film widths. Lengths from 10 feet to 400 feet can be processed with the same ease. Daylight operation. Adjustable processing cycle. Operates from standard power and water sources. Automatic formation of loops. No threading required. Detachable magazine load. Consistently uniform development to archival standards.

O5057 SCRUBBER ATTACHMENT for removing antihalation dye backing from micro film prior to processing.

HOUSTON FEARLESS LABMASTER 16MM OR 16/35MM FILM PROCESSORS are ideally suited to the needs of Film Processing Labs, TV Stations, Universities, Film Producers, Industry, Government. They feature fully automatic daylight operation. Anyone can operate a Labmaster with a minimum of training. Completely automatic-from load to take-off. Hands never touch solutions. Can be loaded and operated in lighted room. Processes from 600 to 2400 ft. of film per hour. Labmasters are modular and in-line. This simplicity trims manufacturing costs.

05061 Black and White Negative-Positive 16mm or 16/35mm (please specify).

05062 Black and White Reversal 16mm.

O5063 16/35MM HOUSTON FEARLESS MODEL NP20C AUTOMATIC COLOR FILM DEVELOPER is designed to completely and automatically process 16mm or 35mm negative or positive Ektachrome Color Film to highest professional standards. Machine will handle both camera and print stock. Unit designed for straight-through operation. The loading ends, together with the first developer, first rinse, first stop and first hardener tanks, are located in the darkroom, while the balance of the processing tanks are in a lighted room. Will handle up to 20 ft. per minute.

O5058 16MM HOUSTON FEARLESS MODEL 11B Automatic Film Developer for Reversal and Negative or Positive films is designed to produce exceptionally fine quality work, where volume requirements are low. The machine is designed primarily to process reversal films, although a simple rearrangement of the processing solutions or the film travel sequence will enable it to give equally satisfactory results with negative or positive films. It is equipped with casters and locking mechanisms so that it can be easily located for convenient operation. Its daylight loading feature makes special partitions unnecessary. It can be operated wherever connections to power, water and drains are accessible.

16MM HOUSTON FEARLESS MODELS 22 AND 22B feature daylight operation in a compact precision-built unit. Completely self-contained, easy to operate and with a high degree of dependability. The Houston 22 is designed for reversal processing of Black and White 16mm films, and the Houston Model 22B for developing of negative or positive 16mm films of all types. Units are semi-portable, mounted on casters for ease in moving, with locks to hold them stationary during operation.



05059 Model 22 For Reversal Processing.

05060 Model 22B for Negative or Positive Processing.

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O5065 16MM HOUSTON FEARLESS PROCESSOR TYPE K-1A is a daylight operated developing machine for continuous processing of 16mm reversal negative or positive film. K-1A is self-contained, semi-portable unit mounted on casters. Processing speeds up to 15 feet per minute. Consists of eight solution tanks, two water tanks and a drying cabinet, solution circulating pump, solution heater, therrmometer, air compressor and filter, heat lamps, re-exposure lamps, refrigeration system, footage counter and film magazine. 1000 foot capacity. All components in contact with solution are of stainless steel. Film driving mechanism applies continuous minimum tension on film, eliminating breakage assuring uniform results. Power requirement: 110 volt AC 7400 watts. Dimensions: 78" long x 30½" wide x 53" high.

O5066 16MM HOUSTON FEARLESS PRO-CESSOR TYPE K-2 is designed for developing either negative or positive film. Similar in construction to K-1A but a smaller unit used where large production is not required. Stainless steel construction.

O5067 16MM HOUSTON FEARLESS PROCESSOR TYPE K-3A is similar in construction and operation to the K-1A. K3A is a negative-positive and reversal machine with speeds up to 20 feet per minute. Stainless steel construction. Dimensions: 65" long x 54" high x 23" wide. Power requirement: 110/220 volt AC single phase.

O5069 16MM AND 35MM MORSE TYPE A-8 PROCESSOR is a self-contained automatic 16mm and 35mm film processing machine capable of developing negative-positive, reversal and color film. Unit will process up to 50 feet per minute. Stainless steel construction. Consists of variable speed drive, tachometer, solution temperature control unit, refrigeration system, and drying cabinet. Capacity of 1000 foot using daylight magazines. Semi-portable mounted on casters.

PORTABLE PROCESSORS



HULCHER GILCO 70MM FILM PROC-ESSING UNIT has been specially developed for processing 100' rolls of 70mm film rapidly and uniformly. Large diameter stainless steel revolve at high speed, moving 100' of film from one reel to the other in less than 30 seconds 48" of film emulsion is exposed to active. of film emulsion is exposed to agitated chemicals at all times. Twin motor drive with high quality Barber Coleman induction motors plus a unique sensing device which provides smooth and fast reversal of the drive without jerking or straining the film makes this high speed operation possible. Constructed of finest quality materials. Reel shafts turn in specially designed oilless nylon bearings impregnated with molybdenum compounds for long life. Normally operates from 115 volts AC power. Where no power is available, the twin motor drive may be quickly removed and the unit operated by

O5100 MICRO RECORD MODEL D11 will process double 8mm, 16mm or 35mm positive, negative or reversal. Will handle 100 ft. of reversal film or 200 ft. of positive or negative film. After loading all processing is completed in daylight. Continuous agitation caused by repeated back-and-forth passage of film through solutions. Tanks and protective hood over mechanism are made of tough, corrosion resistant plastic which also assures complete electrical insulation. Requires only one gallon of solution. Measures only $13\frac{1}{2}$ " x $8\frac{8}{2}$ " x $10\frac{1}{2}$ " and weighs only 11 lbs. Outfit includes driving mechanism, light trap, three nested tanks, 3 ft. rubber hose with faucet adapter and one pair of reels. Operates on 110 volt, 60 cycle, AC power.

O7603 MICRO RECORD MODEL D12 is same as above but will handle up to 100 ft. of reversal, negative or positive film.

O5101 MICRO RECORD MODEL D21 is same as above but will handle up to 100 ft. of 70mm film.

O5102 MICRO RECORD MODEL D31 is same as above but will handle up to 400 ft. double 8mm, 16mm, 35mm or 70mm.

O7610 MICRO RECORD FILM DRYER MODEL DR10 is a "knock-down" unit constructed of stainless steel and rugged aluminum. Cross arms rests on two,springs which permit film to contract naturally while drying without danger of distorting images. Will dry roll of film in approximately ten minutes. Easily assembled or knocked down for carrying. No tools required. Operates on 110 volts AC (other voltages available on special order). Cage is rotated by electric motor. Strip heater, located directly beneath cage, supplies sufficient heat to speed drying. Capacity: 100 ft. double-8mm, or 100 ft. 16mm, or 50 ft. 35mm film.

O7611 MICRO RECORD FILM DRYER MODEL DR15 is similar to above but will dry 200 ft. of 16mm film or 100 ft. of 35mm film.

O7612 MICRO RECORD FILM DRYER MODEL DR20 is similar to above but will dry 100 ft. of 70mm film, or 200 ft. of 35mm film, or 400 ft. of 16mm film.

07613 Carrying Case (please specify model)

07615 MICRO RECORD SQUEEGEE MODEL S10 is for 16mm and 35mm film.

07616 MICRO RECORD SQUEEGEE MODEL S20 is for 70mm film.

07620 MICRO RECORD REWIND MODEL R10 is for 16mm and 35mm film.

 $07621\ MICRO\ RECORD\ REWIND\ MODEL\ R20$ is for 70mm film.

35MM DEBRIE AIGLONNE MODEL D PROCESSOR is an automatic daylight developing machine that requires no leader; processes perforated or unperforated negative or positive film and requires no replenishing. Chemicals are always full strength. Machine contains no sprockets and will process short strips of film. Film is processed in elliptical tubes. One multi-section roller, faced with rubber, drives the film through the entire machine. Rollers are equipped with gentle clutching action which compensates for shrinkage and expansion of film during processing. Emulsion side of film never touches drive rollers. High turbulence produces vigorous agitation. Film shows no "directional effects" or areas of uneven development. Threading is fully automatic. Simply push the end of the film into the magazine holder and the film threads itself. Film is dried by the impingement principle. Machine contains only three controls: temperature, speed and start-stop. Has heavy-duty air filter which is easily removed for cleaning. Consumes only 750 watts, 110 volts AC-DC. Size: $27\frac{1}{2}$ " x 35" x 50 $\frac{1}{2}$ ". Weighs 485 pounds. Water required: $1\frac{1}{2}$ gallons per minute.

09876 16MM DEBRIE AIGLONNE MODEL D PROCESSOR is similar to above but will process 16mm negative or positive film.

09877 16MM DEBRIE AIGLONNE MODEL D PROCESSOR is similar to above but will process 16mm reversal film.

NOTE: Debrie Aiglonne processing machines are available in "DS" models in stainless steel.

16/35MM MAURER PROCESSOR is a daylight loading, portable, field processing unit. It has following features: minimum weight, small size, economical power consumption, image permanence, freedom from elaborate temperature control and a leaderless system of self-threading that handles even short lengths of film. Film is developed at the rate of either 2 ft. or 6 ft. per minute, depending on emulsion thickness of film as it affects development and drying rate. Cameras operating at pulse rates of either 1 frame or 4 frames per second may be connected directly to processor to obtain a continuously processed record as film is exposed. Pulse to camera is controlled by drive motor of processor to insure perfect synchronization. Film is processed in Maurer formula that combines both development and fixing in one solution in a single tank. Tank capacity of 3 pints of solution processes either 500 ft. of 16mm or 200 ft. of 35mm. Film may be cranked through processor by hand if electricity is unavailable. Unit measures 13" x 8½" x 4½" and weighs only 8 pounds. Unit may be supplied for 70mm and wider films on special order.

Photogrammetry

Gordon Enterprises has the answers to all your needs in aerial photography and plotting equipment from pocket type stereoscopes to complex stereo plotting equipment.



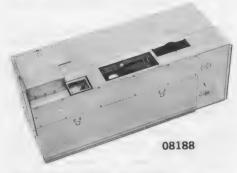
O5070 16MM OR 35MM MORSE G-3 DEVELOPING OUTFIT is a compact daylight developing unit for 16 or 35mm film for negative or reversal process. Acid-proof molded bakelite tank and cover with metal parts of stainless steel. Film reels accommodate up to 100 feet. Size changes are made by twist of top flange of reel. Light-tight developing tank covers; light-proof funnel opening in top of cover; drain at bottom of tank. Secondary exposure can be made through glass viewing window in front of tank. Capacity 3 pints of solution.



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O8188 FAIRCHILD "MINI-RAPID 16" PORTABLE PROCESSOR MODEL F-316A is completely automatic, leaderless loading and self-threading for processing of negative or positive film. 2 to 400 feet of film may be processed with a single solution loading. 100 feet of film can be processed and dried in less than twenty minutes. Solution temperature is controlled by an adjustable thermostat from 65°F to 120°F. Film processing rate variable from 1 foot/min. to maximum of 6 feet/min. Drying compartment temperature variable from 95°F to 160°F. Constructed of stainless steel and plastic. Power requirement — 110-120 volts 60 cycle AC. 1335 watts. Size: 13" x 16" x 27". Weight: 65 pounds.

08189 Circulating water wash system.

O5068 FAIRCHILD MODEL F-213 PROCESSING UNIT is a compact, portable 16, 35 and 70mm roll film developer with capacity of 100 feet Consists of light-tight tank, cover assembly, motor assembly, and reel of stainless steel construction. Unit loaded in darkroom and may be processed in daylight, manually or electrically. 115 volt AC 60 cycle.

modification

Gordon Craftsmen can adapt your early model equipment to meet today's needs.

NIKOR FILM PROCESSING MACHINES consist of stainless steel tanks and reels and loading stands for developing and drying color and black-and-white motion picture film and microfilm. Compact, portable units permit rapid, top quality, results with minimum of handling. Tanks and reels are electrically welded. Open construction of reels permit solutions to circulate freely and reversal black-and-white or color films can be flashed directly on reel without unwinding. Light, compact loading and drying stand. Stainless steel tanks nest together. Developing tank is light-tight and has agitating device in center of cover. Units consist of reel, loading stand, developing tank with agitator and two open tanks. Additional tanks and reels are available.

 05300
 16mm, 28 ft. capacity

 05301
 16mm, 50 ft. capacity

 05302
 16mm, 100 ft. capacity

 05303
 35mm, 28 ft. capacity

 05304
 35mm, 50 ft. capacity

 05305
 35mm, 100 ft. capacity

05306 46mm and 70mm, 28 ft. capacity 05307 46mm and 70mm, 50 ft. capacity 05308 46mm and 70mm, 100 ft. capacity

O5309 Heavy Base 70mm x 80 ft.

03019

03019 REEL E-Z COLOR PROCESSOR MODEL C-TP is designed to fill the need for a processor which in itself can process virtually all color films and papers automatically. The Reel E-Z can be converted instantly to a diversity of color processes. TAPE PROGRAMMING, new to photographic processing but widely used for automation in science and industry, offers the most flexible, efficient and accurate method of timing and programming. Permits as many as sixty separate operations for each of eight channels each minute. Affords a wide selection of agitation to best suit the needs of every stage of the processes. Selects and commands gas-burst and various mechanical means either separately or in combination or alternation as required. Controlling tapes can be modified easily and tailored to adapt the processor to new and different processes and processing techniques. Handles practically all color films and papers, including among others Anscochrome, Ektachrome, Agfacolor, Ferania color and Ekta-color films and all color papers. Easily removed processing tanks and interchangeable timing and sequence program tapes make conversion from one process to another a simple matter requiring less than five minutes. Consists pri-marily of a round rotatable water jacket tank containing seven processing tanks. All removable and interchangeable, arranged in a circle around a common center wash tank. The processing tanks are rotated into position in turn and sequence as required for each process, under a transfer arm which holds, transports, agitates, re-exposes and raises and lowers the materials being processed to and from the processing tanks and the wash tank; all under the very precise control of the tape programmer. Despite its compact size, 4 ft. x 5 ft., it can handle a very large volume of work. Processes as many as 200 rolls of film at a time and can do as many as 1000 prints hourly. Reels and racks are available for 35mm, 70mm, and aerial films up to $9^1\!\!/_2$ " in 100 ft. lengths, cut film from 2" x 3" to 8" x 10" and 55 ft. rolls of paper from $3^1\!\!/_2$ " to 10" wide. Materials are automatically transferred, agitated, re-exposed and washed, and the wash tank drained and refilled; all in turn and sequence, timed precisely as required. Although the machine is essentially automatic in operation means are the very precise control of the tape programmer. is essentially automatic in operation means are also provided for manual control by manipulation of panel control switches. Timing may be varied or changed during the processing cycle for special effects or the automatic control can be by-passed completely and the processor operated through its full cycle manually for experimentation or to process materials for which no program tape is on hand. Reel E-Z operates on 110 volts AC, 60 cycle current. Other voltages are available on special order. O3020 REEL E-Z UNIVERSAL PRODUCTION LINE LOADER is a universal developing reel loader which handles up to 100 ft. lengths of 35mm and 70mm film and aerial film to 9½ inches wide, onto a compact 12 inch stainless steel reel by using indented tape spacers. The same loader will also load roll paper in all widths up to 10 inches, in 55 ft. lengths, on to plastic developing reels.

STINEMAN PORTABLE DEVELOPING KITS

STINEMAN PORTABLE DEVELOPING KITS consists of three nesting stainless steel tanks (for developer, hypo and rinse), a stainless steel processing reel and a loading device which prevents scratching film while loading, plus "C" clamp and instuctions. Height of reel walls on all sizes is $\frac{5}{8}$ inch. Kits available in 16mm, 35mm, 46mm, and 70mm. May be used to develop negative or reversal films or paper. Uses an absolute minimum of solutions. The Stineman System is the simplest, most economical portable developing outfit available.

O3195 16MM/35MM 25 FT. DEVELOPING KIT with one reel

03196 Extra Reel

03197 16MM/35MM 100 FT. DEVELOPING KIT with one reel

O3198 Extra Reel

03199 16MM/35MM 200 FT. DEVELOPING KIT with one reel

O3200 Extra Reel

O3201 46MM THRU 70MM 100 FT. DEVELOP-ING KIT with one reel

03202 Extra Reel

O3203 STINEMAN DRYING RACK is a 100 ft. capacity, demountable unit that stores in small space and may be quickly set up on triangular support which permits revolving film with handcrank to allow fast, even drying. Ideal for field processing.

09653 16/35/70MM GORDON ENTERPRISES
TYPE EL-13A FILM DRYER is designed to dry up
to 500 feet of 16, 35 and 70mm film at
speeds up to 19 feet per minute under a
wide range of temperature and humidity conditions. Heating and film transport mechanisms are housed in a stainless steel cabinet with reinforced glass inspection doors. Air impingement unit and air recirculation can be controlled from 0 to 100%. Heat is supplied through four 660 watt Glocoil heater units operating in conjunction with a contactor and thermostat with approximately 1½ degree F differential. Thermostat fully adjustable from 70 to 170 degrees F and drying temperatures are indicated on an external thermometer. Changing from one film size to another is fast and simple with inter-changeable shafts for both take-up and supply functions, which are supplied with the dryer. Take-up tension is adjustable to individual requirements. Clean, filtered air is supplied at rates up to 1050 cubic feet per minute. A single motor is used to drive the blower and the variable speed transmission. Normally operated on 110 volt AC, 60 cycle, with current draw at 26.5 amperes. However, unit may be operated on 220 volt AC, 60 cycle, single phase, or 208-440 volt AC, 60 cycle 3 phase with quick component changes. A ½ gallon capacity wetting tank is incorporated in the dryer. Film transport speeds: 0 to 35 feet per minute (variable). Film drying speed: 19 feet per minute (all sizes). Film capacity: 500 feet. Size: 19" x 53" x 32". Meets rigid requirements of military specifications.

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FILM VIEWERS

SERIES 20 MOVIOLA EDITING MACHINES are available in a number of different models in order to meet various film editing requirements. All Moviola models are designed to accommodate short strips of film without winding them on reels. The films (picture and sound) are fed into the machine by hand and after passing through drop into a film bin. For those who prefer to do all editing in this manner, Moviola offers models without reel spindles. Different models are made up by assembling standard heads from the following:

PICTURE HEADS (PICTURE ONLY) AVAILABLE IN FLOOR MODEL OR TABLE MODEL (SPECIFY WHEN ORDERING)

16mm without reel spindles

T7026 35mm without reel spindles

T7027 16mm with reel spindles

35mm with reel spindles

COMPOSITE SOUND HEAD (PICTURE & SOUND ON SAME FILM)

T7030 35mm

SEPARATE SOUND HEAD (SOUND FILM ONLY) AVAILABLE WITH FOLLOWING SOUND SYSTEMS: OPTICAL, MAGNETIC, COMBINATION OPTICAL & MAGNETIC (SPECIFY WHEN ORDERING)



16mm without reel spindles T7032 35mm without reel spindles

T7033 16mm with reel spindles T7034 35mm with reel spindles

first in photo instrumentation modifications

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MOVIOLA PREVIEW MACHINES differ from other models of Moviola Film Viewing Machines in that the picture size is much larger. This allows up to 5 people to "Preview" a film. Preview Machines consist of a picture head and sound heads mounted a metal cabinet which contains the amplifier and other parts necessary to make a completely equipped machine. Extra length cabinets are available for machines with more than one separate soundhead. SPE-CIAL PREVIEW MACHINES can be made up by mounting various combinations of "standard" heads on a cabinet. The following combinations are possible:

T7050 Picture head with screen, Model DPV for 35mm film or LPV for 16mm film plus any or all of the following:



Composite sound head on picture head (specify optical, magnetic or combination optical and magnetic).

One or more separate sound heads for 35mm film (specify how many).

One or more separate sound heads for 16mm film (specify how many).

> MOVIOLA FILM EDITING MACHINES with Searching Head offer a curately locating any particular sound on a magnetic film track. Magnetic pick-up may be oscillated anywhere within a 14" Start and finish of any particular sound can be accurately located by moving the position indicators as necessary. Sta-tionary optical sound track reproducer is provided so that either system may be



T7035

T7036 17½ mm film.

T7037 35mm film.

T7038 Combination for 171/2 mm or 35mm.

T7040 Counter for feet and frames.

Counter for seconds and tenths of seconds

T7042 Tachometer for speed of film.

T7043 Electric brake.

T7044 Synchronous motor drive.

T7045 Earphones with cord and plug.

T7046 Special rails and rollers for adapting soundhead to use $17\frac{1}{2}$ mm split film or 35mm

ACMADE MARK II EDITING TABLES incontinuous movement, (noncorporate intermittent) for complete safety when editing negative and original color material. Push button controls on top of table for forward, instant stop and reversing at 24 f.p.s. Also capable of inching. May be controlled by foot pedals for forward and reverse respectively with center pedal for variable speed. Front film path is for picture and combined optical or magnetic sound, and rear path for separate magnetic film. Each film path can be independently declutched or operated together. Picture is projected on a 6" x 8" screen using a watt projection lamp. Table is with independent take-up motors with 2,000 ft. capacity reel arms. Film tension can be adjusted and is suitable for reel loaded film. Table can be supplied with interchangeable decks for 16mm picture and combined optical or magnetic track with 35mm separate magnetic sound.



T7680 Type A composite picture and optical or magnetic sound on 16mm film. Separate track for 16mm magnetic film only.

681 Type B composite picture and optical magnetic sound on 16mm film. Separate track for 35mm magnetic film only.

Type C composite picture and optical or magnetic sound on 16mm film. Separate track for 16mm magnetic or optical film

T7683 Type D composite picture and optical or magnetic sound on 16mm film. Separate track for 35mm magnetic or optical film.

T7684 Type J 35mm picture only. Separate track for 35mm optical or magnetic film.

Type K composite picture and optical sound on 35mm film. Separate track for 35mm optical or magnetic film.

T7686 Type L composite picture and optical or magnetic sound on 16mm film. Separate track for 16mm and 35mm magnetic film.

Type M16 silent model for 16mm picture only.

T7696 Type M35 silent model for 35mm picture only.

T7690 Type A interchangeable decks for use on Types J&K

Type B interchangeable decks for use on Types J&K.

Type C interchangeable decks for use on Types J&K.

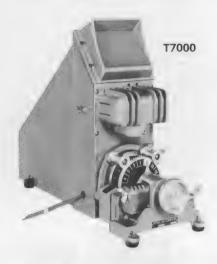
T7693 Type D interchangeable decks for use on Types J&K.



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T7000 35MM NATIONAL CINE EQUIPMENT VIEWER features sharp, clear and brilliant 3½" picture. Easily adaptable as a combination viewer and synchronizer. Assembled to your specific needs. Combines the functions of viewer, synchronizer, footage counter and frame counter—all in one unit. Precision-built in every detail for top performance and durability. Can be used with a sound reader for single system; also available with additional 35mm or 16mm units for double system editing of film. Soundheads for magnetic tape can be added to additional sprockets for any number of magnetic tracks. Built-in optical shutter provides smooth projection of running picture or of single frame for frame-by-frame editing. No danger of overheating at any time. Picture can be viewed for long periods of time without fear of burning or damage to film.



T7320 35MM CECO PROFESSIONAL FILM VIEWER will not scratch film. Enables editor to view film left to right on large 4% x 6 1/16" brilliantly illuminated screen.

T7321 35MM CECO PROFESSIONAL FILM VIEWER with Footage & Frame Counter

T7322 35MM CECO PROFESSIONAL FILM VEWER with Sound Reader

T7323 35MM CECO PROFESSIONAL FILM VIEWER with Footage & Frame Counter and Sound Reader

T7324 Double System Magnetic Head

T7325 16MM CECO PROFESSIONAL FILM VIEWER similar to above but accommodates 16mm film

T7326 16MM CECO PROFESSIONAL FILM VIEWER with Footage & Frame Counter

T7327 16MM CECO PROFESSIONAL FILM VIEWER with Sound Reader

T7328 16MM CECO PROFESSIONAL FILM VIEWER with Footage & Frame Counter and Reader

T7329 Double System Magnetic Head



T7016 35MM A.C.E. ROTARY VIEWER permits viewing film between rewinds either forward or backward at high rewind speed. Film movement actuates optical system which permits viewing film while in motion. Film travels in an open track, scanning aperture has no pads, gates or other pressure mediums, so both positive and negative film may be run without danger of scratching or abrasion. Footage and frame counter optional.

T7017 A.C.E. IMAGE ERECTOR is a precisely designed attachment for turning the image seen on the A.C.E. Viewer 90 degrees so that it is seen right side up and directly in front of the editor while facing the rewinds.



T8364 16MM MOVISCOP FILM VIEWER is equipped with special high speed bearings permitting operation at speeds up to 450 feet per minute. Sapphire film guide provides steady, sharp picture at all speeds. Uses low voltage bulb and effective heat filter to prevent overheating film.

T7153 16/35/70MM RICHARDSON FILM VIEW-ER MODEL R-100 is a well proven reliable viewer for 16mm, 35mm and 70mm film. All functions of this machine can be performed by semiskilled personnel. Conveniently located control panel permits operator to view film in variable cine motion speeds or single frame advance. Hinged desk panel drops down for inspection and maintenance. This model can also be supplied with a cross-wire measuring system and electronic output to standard computer formats. Will handle 1,000 feet of film on standard reels, spools or cores. 16mm and 35mm single frame variable speeds up to 24 f.p.s. in cine operation. 35mm double frame and 70mm variable speeds up to 12 f.p.s. in cine operation. A single frame image may be projected indefinitely without damage. Three element condenser optical system. Select quality front surface aluminized mirrors with protective coating. When ordering specify perforation type, pitch and aperture size.

T7154 16/35/70MM RICHARDSON FILM VIEW-ER, MODEL R-500 uses 16mm, 35mm and 70mm film. Specify type of perforation, pitch, frame advance and aperture size. Will handle up to 1,000 feet of film on spools, reels or cores on standard spindles. 16mm and 35mm single frame variable speed up to 24 f.p.s. in cine operation. 35mm double frame and 70mm variable speed up to 12 f.p.s. in cine operation. A single frame may be projected indefinitely without damage. Three element condenser optical system. Select quality front surface aluminized mirrors with protective coating.



T7117 16MM CRAIG PROJECTO-EDITOR combines a table top 31/4 x 41/4 inch viewer with all the features of a film editor. Fold-away construction permits unit to be carried in its own case. Built-in frame marker, automatic lamp switch, stainless steel film guide and track, nickel-silver sprocket and rollers. 1 to 1 gearing on film take-up spindle permits smooth running. 4 to 1 gearing on film rewind spindle allows rapid rewinding. Floating action scraper removes emulsion smoothly and quickly. Includes carrying case and Craig Formula #7 Film Cement.

T7118 16MM CRAIG "PRO" VIEWER features a big 4 x 6 inch hooded screen which permits comfortable editing and viewing of 16mm film. Coated optics assures maximum light transmission and edge to edge sharpness. Pictures are clear and bright. 75 watt lamp provides 20 foot candles of light on screen for working in a normally illuminated room. Built to professional specifications to stand up under constant use.

T7119 16mm Viewer as above mounted on board with 2,000 ft. "Pro" rewinds, Master Splicer and Film Cement.

Anywhere In The World

Whether you are producing a documentary film in Asia, or equipping a motion picture studio in Europe, please remember that Gordon Enterprises is ready and able to serve your needs in every way. Chances are that the cameras, sound, processing or editing accessories are in stock here. Should you require special adaptations, Gordon technical consultants and optical and sound engineers are just a phone call or cable away from you . . . wherever you are. They are at your service in solving your production problems. Please feel free to call for assistance in selecting the most practical equipment. The telephone number is 766-3725. The direct distance dialing code is 213.

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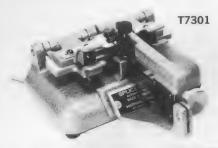
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FILM SPLICERS

HARWALD SPLICE-O-FILM AUTOMATIC SPLICERS with controled heat are accurate within 1/10,000 of an inch. Automatic "push-pull" scraper takes off exactly the right depth of emulsion regardless of applied pressure. Splice-O-Film's registration accuracy makes it ideal for A and B roll preparation and also makes possible reliable splicing of raw stock in the dark room.



T7301 8MM/16MM HARWALD COMBINATION SPLICE-O-FILM SPLICER MODEL AR provides all of the famous Splice-O-Film features at a very moderate price. Registration pins are located at the rear of the bed.



T7302 8MM/16MM HARWALD COMBINATION SPLICE-O-FILM SPLICER MODEL B provides a higher degree of flexibility than the Model AR inasmuch as any emulsion position film may be spliced without crisscrossing. Registration pins are positioned in the center of the bed. Its outstanding ruggedness and precision recommend it for all professional uses.

T7303 16MM HARWALD MICROFILM SPLICE-O-FILM SPLICER is similar to Model B above except that it is equipped with edge guide channels instead of registration pins.

T7304 35MM HARWALD SPLICE-O-FILM SPLICER MODEL C can be used to splice either negative or positive film.

T7305 35MM HARWALD MICROFILM SPLICE-O-FILM SPLICER is similar to Model C above except that it is equipped with edge guide channels instead of registration pins.

T7306 35MM HARWALD CINEMASCOPE SPLICE-O-FILM SPLICER is similar to Model C except that registration pins fit CinemaScope perforations.

NOTE: HARWALD SPLICERS are available in either 1/16 inch (negative) or 3/32 inch (positive) scraper bar widths. 35mm splicers are also available in $\frac{1}{6}$ inch scraper bar width on special order. Delivery is about six weeks.

ACMADE TUNGSTEN PRECISION HOT SPLICERS incorporate precision features which insure absolute accuracy and safety in splicing. Stainless steel blocks are precision fitted with tungsten-carbide inserts for cutting. Cutting edges will remain sharp for an indefinite life. Attached scraper ad-

justable for depth — fitting jig incorporated on splicer base. Tempered steel springs provide even pressure, positioning film firmly during scraping and splicing processes. Thermostatically controlled heater maintains constant 100° temperature. Specially designed right hand pressure block permits easy and accurate back-scraping on all models.

T7671 for 16MM film.

T7672 for 35MM film.



T7673 for 35MM/16MM film. Features retractable 35mm and 16mm pins. Permits center placement for A and B roll splicing.



T7674 Combination 16MM/35MM foot operated model. Inspection light is provided over waste bin. Rugged castings assure perfect alignment of machine at all time.

T7698 16MM ACMADE BUTT SPLICER will splice, repair, butt splice, or strengthen splices on all types of film — positive, negative, magnetic, cronar and other bases using perforated adhesive tape. Both perforated tape and film are registered on separate pins thereby insuring accuracy.

T7699 35MM ACMADE BUTT SPLICER is similar to above but for 35mm film.

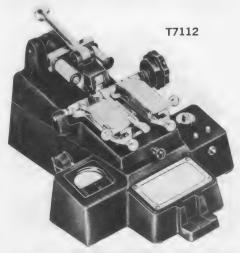
TRAID HOT SPLICERS feature lifetime scraper blade built-in; precision full-fitting pilot pins; thermostatically heated blades make perfect welds; hardened, ground chrome steel cutter blades. Cuts, splices and welds in one operation. Two sets of pilot pins permit splicing 16mm with the perforations either toward or away from the operator, eliminating the necessity of looping the film around the splicer, particularly important when using "A" and "B" rolls. 16mm pilot pins retract on 35/16 model to permit 35mm splicing.

T7101 Model 135, for 35mm and 16mm film



T7102 Model 116, for 16mm and 8mm film T7155 Model 170 for 70mm film

> PRESTO MIRACLE SPLICER is a permanent butt weld splicer. Film is replasticized when spliced. Replaceable head is fitted with 16mm or 35mm element.



T7112 For non-perforate 16mm or 35mm film (please specify).

T7113 Same for non-perforate 70mm film.

T7114 Same for perforate 16mm or 35mm film (please specify).

T7115 Same for perforate 70mm film.

MILITARY QUALITY CONTROL. All Gordon Enterprises' plants are operated under approved U.S. Government Quality Control to Military Specifications. The same standards and inspection procedures apply to all equipment and services supplied to motion picture studios, commercial photographers, cinematographers, research laboratories and private industry.



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T7103 35MM BELL & HOWELL AUTOMATIC FILM SPLICING MACHINE heating elements with a weld as strong as the film itself. Film is controlled by conveniently located foot pedals. 110 volt or 220 volt operation (specify). For negative or positive with either single or double scrape. .072" wide splice.

T7104 Similar to above but full hole lap positive film splicer, with .156" wide splice.

T7105 Similar to above but for both perforated and unperforated film with .072" wide splice.

T7106 Similar to above but for interchangeable splicing of 35mm, 16mm and 8mm film straight across; all splices .065" wide.

T7107 Similar to above but with extra-large tables; full hole lap .156" wide splice.

T7100 8/16MM WESTERN CINE AUTOMATIC HOT SPLICER features precision hardened, ground and polished platens and pins. Ball bearings in all high speed components. Fully adjustable motor driven rotary cutter. Eliminates hand scraping of film emulsions. Simply press a button and the job is done. Order splicer adjusted for the splice width best suited to your needs. Standard splice width is .070 inch. Automatic emulsion removal makes this the only splicer perfectly suited for darkroom use. Dual film registration pins permit perfect alignment even with shrunken or stretched film. Centered pins permit the splicing of sound stock with the perforations either toward or away from the operator.



T7160 70MM RICHARDS HOT SPLICER features precision cutting blades and thermostatically controlled heating element. Operates on 110 years AC

T7108 35MM GRISWOLD SPLICER Model R-2 has cutting blades of tool steel, precision ground. Complete with scraper holder, 3 blades, felt moistener. Overlaps (specify): positive 5/32, negative 1/10 or 1/16.

T7109 16MM GRISWOLD SPLICER Model R-3 same as R-2 but for 16mm; excellent for single A or B wind film.

T7110 8MM/16MM GRISWOLD SPLICER Model HM6 is smaller than R-2 for 16mm and 8mm film

T7111 8MM/16MM GRISWOLD SPLICER Model T is similar to above, diffused light source below splicing area with toggle switch. Same overlaps as above (please specify).

T7120 NEUSCOPE "CINEMASCOPE" FILM SPLICER handles 4-track stereophonic Cinema-Scope film as quickly, easily and accurately as standard 35mm film. Film is locked in position throughout splicing operation — including scraping of both sides of film.

T7121-NEUZIP WIRE BRUSH SCRAPER removes binder between emulsion and film base. Sharp steel scraper does part of job and stiff, sharp, spring-steel brush does the rest — roughing up and "fogging" base for a perfect fast cement action. Specify overlap: 5/32", 1/10" or 1/16".

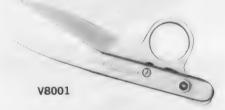
FILM CEMENT

U8050 HARWALD CEMENT-O-FILM is a superspeed extra strong professional film cement with an extremely fast setting action. Very fast drying allows faster splicing. This cement has won tremendous acceptance by professional film editors. Available in 1 oz. bottles and 1 pt. cans.

U6555 JEFRONA ALL-PURPOSE FILM CEMENT holds all film splices firmly because of excellent adhesive qualities. Available in ½ oz., 1 oz., 2oz. and 8 oz. bottles. Also in 1 pint, 1 quart, ½ gailon and 1 gallon cans. (Please specify size and number of bottles or cans desired.)

U6556 ETHYLOID FILM CEMENT in one pint can with pouring spout.

T7116 EDITALL TAPE SPLICER for 1/4" tape only. Rectangular rod of duralumin with longitudinal groove machined and polished to mirror finish and free of sharp edges. Holds tape securely while similarly finished transverse grooves are provided for cutting blade.



V8001 FILM NIPPERS are ingeniously designed editing scissors that are worn like a ring. They rest comfortably in the palm of the hand, leaving fingers free to handle film. Exclusive stainless steel spring and ball-bearing action keeps them always open and ready to cut film. Constructed of finest nickel plated steel. Overall length is 5 inches, with full 2 inch cutting edge.

SPLICING TAPE

SCOTCH BRAND SPLICING TAPES are available in "translucent white" used primarily for editing magnetic film and "transparent" for editing photographic and magnetic film.

J8205 NO. 307 TRANSLUCENT WHITE double perforated 35mm x 66 ft.

J8206 NO. 307 TRANSLUCENT WHITE single perforated 17.5mm x 66 ft.

J8207 NO. 307 TRANSLUCENT WHITE double perforated 16mm x 66 ft.

J8208 NO. 305 TRANSPARENT double perforated 35mm x 66 ft.

J8209 NO. 305 TRANSPARENT single perforated 17.5mm x 66 ft.

J8210 NO. 305 TRANSPARENT double perforated 16mm x 66 ft.

J8201 NO. 41 SPLICING TAPE is pressure-sensitive specially designed for splicing magnetic tape. The white thermosetting adhesive will not ooze or bleed under tension or cause magnetic tape layers to stick together; resulting in neater, noise-free, lifetime splices. Available in 7/32", 1/2" and 3/4" widths with utility hand dispenser.

J8202 NO. 43P LEADER and TIMING TAPE is 1/4" high-impact strength plastic tape that can be spliced to magnetic tape as a thread-in leader. May be used for identification between recorded selection, cueing and exact timing in professional recording. Easy-to-see plaid marking spaced every 71/2" in handy, dust-free dispenser.

FILM REWINDS

MOVIOLA REWINDERS are designed to handle 16" diameter reels. Spindles are mounted on ball bearings 1:3½ gear ratio. Standard models range from 1 reel units to those with a hinged shaft for 4 reels. First reel of multiple reel models are driven by a keyed shaft. Additional reels are driven by friction disc spacers; spacers are free to slide on shaft but are keyed to shaft by a pin which engages a groove length wire to shaft. Spring clamp unit engages friction disc into contact. Spacers are designed to match reel spacing of Moviola Synchronizer.

T7070 WA-16 for one 16mm reel.

T7071 WBS-16 for two 16mm reels.



T7072 WCS-16 for three 16mm reels.

T7073 WDS-16 for four 16mm reels.

T7074 WDUS-16 will accept four 16mm reels for heavy duty service. Shaft supplied with end support.

T7075 WA-35 for one 35mm reel.

T7076 WBS-35 for two 35mm reels.

T7077 WCS-35 for three 35mm reels.

T7078 WDUS-35 will accept four 35mm reels for heavy duty service. Hinged shaft supplied with end support.

T7079 Titewind attachment.

T7080 Video Tape rewind features quick change hub for easy removal of reel.

T7081 Video Tape adapter will convert any Moviola rewind for video tape reels.

rentals

Most of the motion picture and instrumentation equipment listed in this catalog is available on a daily, weekly or longerterm basis. Fast air shipment reaches most out-of-town locations within a day. Rental orders are given priority treatment, and are shipped same day if necessary. Write, wire or telephone your requirements.

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editing equipment

MOVIOLA DIFFERENTIAL GEAR REWINDERS are designed to simplify the task of multi-film synchronizing. Differential gear principle provides for transmission of positive non-slip driving or braking torque equally to each reel regardless of its speed of rotation. Locking devices are provided so that all reel spindles may be positively driven at same speed.



T7085 RHB-1L will accept two 10" reels for left hand operation.

T7086 RHB-1R will accept two 10" reels for right hand operation.

T7087 RHB-2L will accept two 15" reels for left hand operation.

T7088 RHB-2R will accept two 15" reels for right hand operation.

T7089 RHD-1L will accept four 10" reels for left hand operation.

T7090 RHD-1R will accept four 10" reels for right hand operation.

NEUMADE DYNAMIC REWINDS feature smooth, precision ball-bearings, greased packed and sealed. No need for oiling. Extra heavy streamlined housing, over-sized ruggedly constructed base. Steel pinion gear with ½" bearing shaft of one-piece construction. Crank perfectly counter-balanced. Strong catch locking jack prevents reel from flying off at high speeds. Positive action brake can be operated by elbow. 2½ to 1 gear ratio. Also available with 4 to 1 gear ratio when specified.



T7200 35MM NEUMADE DR-1 DYNAMIC geared end rewind

T7201 35MM NEUMADE DR-1B DYNAMIC geared end rewind with brake

T7202 16MM NEUMADE DYNAMIC 16 Rewind with brake, accepts 2,000 ft. reels

T7203 Similar to above without brake

T7204 Similar to above with clamp type mounting

T7205 Similar, accepts 100 ft. spools of either 16mm or 35mm Microfilm

T7206 16MM NEUMADE PD-1 Motor driven rewinds consist of one hand crank Dynamic rewind with brake and one ball bearing power driven rewind mounted on an acid resisting white

enamel panel, 40" long, 13" wide. Unit is equipped with a throw-out clutch for reversing the film with the geared end hand rewinder, which has sensitive arm brake. Panel can be equipped with a splicer, viewer, measuring machine or combination of any two or all three devices, on special order.



T7207 16MM NEUMADE PD-2 Motor rewind unit only.

T7208 35MM NEUMADE MULTIPLE REEL REWINDS includes 2 Dynamic standards, slotted shafts, quick-set spacers, end locks.

T7209 Similar, 16mm.

T7210 Four-way, includes 2 Dynamic standards with extra-length shafts on universal joints, additional spacers, rear supports.

T7211 Similar, 4-way 16mm.

T7212 35mm, similar to above, but for 3 reels.

T7213 Similar, for 16mm.

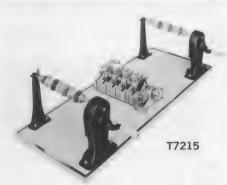
T7214 Combination 16mm and 35mm model for 2 16mm and 35mm reels.

Optical and Magnetic SOUND SYSTEMS

for most types of professional cameras

8mm • 16mm • 35mm

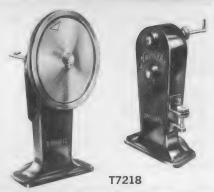
see pages 10, 11, 12; 18, 19, 20, 21; 44 through 58



T7215 35MM NEUMADE FOUR-WAY Rewinds can be used with 1, 2, 3 or 4 reels. Dynamic ball-bearing construction, rear support standards with bronze sleeve insert and locking clamp. Universal joint on multiple-length shaft. Device on each shaft locks or releases reels and spacers. With 3 spacers for each shaft.

T7216 Similar, but for 1, 2 or 3 reels.

T7217 Similar, for 16mm.



T7218 35MM NEUMADE MDR-2 Dynamic motor drive end with pulley features 10" aluminum pulley firmly anchored to motor driven shaft with extra bearing surface.

T7219 35MM NEUMADE MDR-2B tension brake dummy with adjustable drag for perfect control.

T7220 35MM NEUMADE "Giant" rewind is a popular priced durable rewind without ball bearings.

T7221 35MM NEUMADE GNR-1B Geared end rewind with brake.

T7227 35MM NEUMADE SD-1 SYNCHRO-DUAL Rewinds (Standard) will handle two reels. Features extra long two reel shafts with ends threaded, fitted with spring tension friction clips for use between reels and leather faced pressure hub plus knurled lock nuts for end of each shaft.

T7228 Similar, for 16mm.



T7222 35MM NEUMADE No. 1 bench type rewind although designed originally for 1,000 ft. reels can also be used for 2,000 ft. reels. Adjustable spring tension drag on dummy end,

T7223 35MM NEUMADE No. 2 Clamp Type rewind is similar to No. 1 model, but with channel type castings for extra strength. Mounting clamp arm is integral part of housing and features suregrip mechanism. Bases also drilled for bolting to work surface where permanent mounting is desired. Spring tension drag on dummy end.

T7224 35MM NEUMADE No. 3 Everwear Bench Rewind features one-piece machine-cut pinion gear and $\frac{1}{2}$ " shaft bearing of cold-rolled steel. Dummy end has special reversed tension brake adjustment.

T7225 35MM NEUMADE Everwear Clamp Type Rewind has same features as No. 3 model, but with extra heavy clamp arm and quick-set mechanism. Base is also drilled for bolting to work



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surface where permanent mounting is desired. Adjustable spring tension drag on dummy end.

T7226 35MM NEUMADE No. 5A is of Everwear construction plus extra high housing and longer crank arms. Equipped with double-length shaft, having two keys to permit winding of two reels.

T7229 35MM NEUMADE DR-2 TWO-WAY Rewinds (Deluxe) features improved synchro-dual rewind with Dynamic ball bearing construction with double-length shafts. Reel spacer plus "Neulock" tension unit on each shaft fastens or releases reels at any point on shaft with only half turn. Can be used for only one reel if desired.

T7230 Similar, for 16mm.

T7231 35MM NEUMADE DT-1 DYNAMIC TITE-WIND allows rewinding film quickly and evenly without limit to size of roll. Idler on vertical slide controls and guides top of film roll. Easily mounts on Dynamic or Giant rewind by means of cover bolts. Metal hub and bakelite core supplied.

T7232 35mm Neumade DT-1 Titewind only.

T7233 35mm Neumade DT-1D Titewind complete with Dynamic Geared End.

T7234 35mm Neumade DT-1G Titewind complete with Giant Geared End.

T7235 35MM NEUMADE TW-1 TITEWINDER (without Rewinder) is a handy device to mount film quickly and evenly on a core or hub without use of flange or reel. Supplied complete with mounting base, spring-tension arm and deep-cut guide roller, plus brass hub to fit on rewind shaft for use with bakelite core. Can be used with any Neumade rewind.

T7236 Similar, for 16mm.

T7237 35MM NEUMADE FILM HORSES will accommodate reels of film up to 15" in diameter. Outside stanchions with bottom spring hinge and clasp. Bottom plates drilled for table bolts.

T7237 FT-1 Single 1000 ft.

T7238 FH-2 Double 1000 ft.

T7239 FH-3 Single 2000 ft.

T7240 FH-4 Double 2000 ft.

T5050 16MM MOY FILM EDGE NUMBERING MACHINE numbers both negative and positive film on base or emulsion side at speed of 50 feet per minute. 2000 ft. film capacity. Nonintermittent film movement will not scratch emulsion. Automatically operated metal numbering block prints footage number with each revolution of sprocket. Film then passes over drying rollers before being rewound. Bristle brush and felt pad keep numbering block clean. Numbers are printed between perforations. Standard numbering block is six-figure model, with either two handset and four automatic figure wheels or three handset and three automatic wheels or other combinations on special order (please specify). Built-in switch, "niphan plug", central lubrication, shaft drive — no belts, micro-switch cuts off machine automatically in case of break (optional), footage counter with reset (optional), finished in black baked enamel and polished chrome and mounted on cast aluminum base. Non-magnetic parts do not affect magnetic film or tape.

T5051 35MM MOY FILM EDGE NUMBERING MACHINE is similar to above but will handle 35mm film. Prints number either between perforation or on outside edge.

FILM SYNCHRONIZERS

MOVIOLA SYNCHRONIZERS are constructed of strong cast aluminum frame with open base to permit illumination of film when operated over a light well. Main shaft turns on sealed, precision, ball bearings. Film retaining rollers equipped with self-lubricating bearings.

T7050 MOVIOLA 16MM SYNCHRONIZER with 4 digit resettable footage counter. Available up to 6 sprockets. (Please specify.)

T7051 MOVIOLA 35MM SYNCHRONIZER with 4 digit resettable counter. Available up to 6 sprockets. (Please specify.)



T7052 MOVIOLA 16/35MM SYNCHRONIZER with separate 4 digit footage counter is provided with gear train between 16mm and 35mm sprocket. Gear train may be disengaged so that 16mm sprockets and counters may be operated independently from 35mm sprockets. Available in any combination of 3 sprockets each and location of 16mm sprocket nearest or away from operator. (Please specify.)

T7053 Counter to count frames only.

T7054 Counter to count seconds and tenth (referred to sound speed.)

T7055 Program Timer to read seconds — minutes — hours directly. Counter adaptable to all Moviola Synchronizers.

T7056 Clutch to disengage shafts between specified sprockets.

T7057 Sprockets and adjustable width rollers for 35mm or $17\frac{1}{2}$ mm (split film.)

T7058 Sprockets for 35mm film perforated double 16mm.

NEUMADE SYNCHROMASTER FILM SYNCHRONIZERS feature large SMPTE sprockets, precision ball bearings throughout, dural tension rollers are individually adjustable, fingertip release, concealed controls, individual frame movement, rubber padded bases are drilled for table mounting. Hammerloid enamel finish with polished chrome and aluminum trim.

35MM SYNCHROMASTERS

T7241 Model 352 - 2 sprockets

T7242 Model 353 - 3 sprockets

T7243 Model 354 - 4 sprockets

16MM SYNCHROMASTERS

T7244 Model 162 - 2 sprockets

T7245 Model 163 - 3 sprockets

T7246 Model 164 - 4 sprockets

COMBINATION SYNCHROMASTERS

T7247 Model 5161 - 1 35mm, 1 16mm sprockets

T7248 Model 5162 – 1 35mm, 2 16mm sprockets

T7249 Model 5261-2 35mm, 1 16mm sprockets



T7250 Model 5262 - 2 35mm, 2 16mm sprockets

NOTE: Synchromaster assemblies are available mounted on Formica panels in various combinations with various rewinds.

PRECISION LABORATORIES UNITIZED SYNCHRONIZERS offer a totally new concept in film synchronization. You may add or subtract units as you need them, when you need them. Any number of sprockets may be added to basic unit. Units feature precision ball bearings and oilless bearings throughout. Large sprockets to SMPTE standards. Dural tension rollers are individually adjusted. Table mounting feet have runbteer pads. Simple coupling provided for unitized assemblies.

35MM SYNCHRONIZER

T7137 Model S635-1: 1 sprocket

T7138 Model S635-2: 2 sprockets

T7139 Model S635-3: 3 sprockets

T7140 Model S635-4: 4 sprockets

T7141 Model S635-5: 5 sprockets

T7142 Model S635-6: 6 sprockets

16MM SYNCHRONIZER

T7143 Model S616-1: 1 sprocket

T7144 Model S616-2: 2 sprockets



T7145 Model S616-3: 3 sprockets

T7146 Model S616-4: 4 sprockets

T7147 Model S616-5: 5 sprockets

T7148 Model S616-6: 6 sprockets

COMBINATION SYNCHRONIZER

T7149 Model S1635-1: 1 - 16mm, 1 - 35mm sprocket

T7150 Model S1635-2: 2 - 16mm, 1 - 35mm

sprocket

77151 Model S1635-3: 1 – 16mm, 2 – 35mm

sprockets

T7152 Model S1635-4: 2-16mm, 2-35mm sprockets

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SOUND READERS

PRECISION LABORATORIES SOUND READERS are precision-built instruments designed for use between a pair of rewinds. They feature simple threading, polished stabilizer drum with needle bearings, with a surface which cannot damage film. Film rollers machined to conform with SMPTE standards, fitted with oilless bearings. Precision ground shafts.

16MM AND 35MM COMBINATION OPTICAL SOUND READERS

T7122 Model 600: Optical sound track is read by placing the 16mm and 35mm film track toward the face of the instrument.

T7123 Model 600 RL: The sound track is read by placing the track towards the operator and scanning from right to left. (It may also be used from left to right.)

16MM, 17.5MM, 35MM AND 1/4" MAGNETIC FILM AND TAPE SOUND READERS

T7124 Model 700: Sound track is read by placing the 16mm, 17.5mm and $\frac{1}{4}$ " film or tape with the oxide base up, on a polished stabilizer drum with needle bearings.

T7125 Model 700SP: Sound track is read by placing the magnetic film or tape with the oxide base down, on a polished chrome plated stationary drum.



T7126 Model 800: Sound track is read by placing the 16mm, 35mm and $^{1}\!4''$ film or tape track toward the face of the instrument.

T7127 Model 800 RL: The sound track is read by placing the track towards the operator and scanning from right to left. (May also be used from left to right.)

PRECISION LABORATORIES MAGNETIC AM-PLIFIERS SOUND READER ATTACHMENTS These units feature high gain amplification, with a 4 watt power output, heavy duty Alnico V speaker, safety fused, prefocused socket, pilot light, 6-foot heavy duty line cord. Operates on 117 volts, 60 cycle AC.



T7128 Model 900: Magnetic amplifier for single head playback

T7129 Model 900SP: Magnetic amplifier with mixer for two head playback

T7130 Model PMA900 Precision Magnetic Attachment features magnetic head mount with adjustments for track locations (in-and-out movement) and adjustments for magnetic film and tape thickness.

T7131 Attachment for Moviola Synchronizer, complete with amplifier

T7132 Magnetic Head only for Moviola Synchronizer

T7133 Attachment for HFC Synchronizer, complete with amplifier

T7134 Magnetic Head only for HFC Synchro-

T7135 Attachment for Neumade Synchromaster, complete with amplifier

T7136 Magnetic Head only for Neumade Synchronizer

MOVIOLA SOUND READERS



T7060 Magnetic Sound Reader Attachments with amplifier and 4" speaker, volume control and headphone jack.

T7061 Optical Sound Reader for 16mm film. Reads left to right or right to left.

T7062 Optical Sound Reader for 35mm film. Similar to above.

T7063 Optical Sound Reader for 35mm, 16mm or 35-32mm film. Reads left to right, right to left, or emulsion up or down.

T7064 Magnetic Sound Reader for 16mm film. Reads left to right, right to left or magnetic coating up or down.

T7065 Magnetic Sound Reader for 35mm film. Similar to above.

SERVICE

built this business

That is the reason why Gordon Enterprises has achieved world leadership in both inventory and allaround service of motion picture and photo instrumentation equipment.

U8051 35MM READY-EDDY CALCULATOR is a 5 inch plastic disc with a sliding indicator that answers numerous timing questions concerning scene length, amount of film required for a scene, screen time, equivalent length of 16mm reduction print made from 35mm, etc. Simple to operate.

U8052 8/16MM READY-EDDY CALCULATOR similar to above but may be used with both 8mm and 16mm films.

U5990 16MM HARWALD PREMIER FOOTAGE COUNTER is designed for maximum efficiency in all phases of film handling. Equipped with a "shoe" which may be attached permanently to editing bench so that counter may be slipped into place only when required. Has 20-tooth aluminum sprocket and Veeder-Root counter. Safe for handling magnetic film.

T5991 35MM HARWALD PREMIER FOOTAGE COUNTER is similar to above but designed for 35mm film.

U8553 35MM NEUMADE FOOTAGE AND FRAME COUNTER MODEL 38 is equipped with five digit counter for recording both footage and frames. Has eight frame, 32 tooth sprocket hub with frame slots. Iron housing finished in black enamel on white porcelain base. Available with 1, 2, 3 or 4 hubs (please specify).

U8554 35MM NEUMADE FOOTAGE COUNTER is four digit counter for measuring footage only. Has eight frame, 32 tooth sprocket hub with individually controlled tension rollers on each side. Grey iron cast housing on white porcelain base. Available with 1, 2, 3 or 4 hubs (please specify).

U8555 16MM NEUMADE MEASURING MACHINE may be used with sound or silent films. Equipped with 20 frame hub and reset counter. Records footage on Veeder counter and frames on separate clock dial. All tension rollers operate individually. Available in single or double hub machine for one or two films, footage only. Also in single or double hub machine with both footage and frame counters.

NOTE: 16MM AND 35MM NEUMADE MEASURING MACHINES can be supplied on special order for non-perforated film.

U8552 65/70MM NEUMADE MEASURING MA-CHINE is equipped with single hub for recording footage count. Has adjustable tension rollers, frame lock, ball bearings and reset knob on counter.

U8550 35MM NEUMADE SHOWTIMER MODEL ST-35 is designed to be placed between rewinds for recording projection time of film in seconds, minutes and hours. Film is threaded through 32 tooth sprocket hub. Veeder counter has reset knob. Equipped with synchronized tension rollers and finished in baked enamel with chrome trim.

U8551 16MM NEUMADE SHOWTIMER MODEL ST-16 is similar to above but designed for 16mm film. Accurate to 1/24th second.

U9051 16MM CAMART ELECTRIC FILM TIMER is designed for timing narration, post-recording, dubbing, etc. Individual synchronous timing motors measure total footage and its equivalent in minutes and tenths. Operates on 110 volt AC, 60 cycle power.

U9052 35MM CAMART ELECTRIC FILM TIMER is similar to above but shows 35mm footage.

U9053 16MM CAMART ELECTRIC FILM TIMER with single counter shows 16mm footage only, no timer is provided.

U5431 8MM/16MM NEUMADE NEUSCALE provides every measurement required for editing: frame count, sound track for corresponding frame, timing table for silent and sound speeds. Measures in inches and centimeters. Measures: 1½" x 12".

U5634 16MM/35MM EDITOR'S CONVERSION CHART converts footage to seconds, or to frames, or to words per minute. Measures 20" x 30". Suitable for wall mounting.



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INSPECTING & CLEANING MACHINES



U7001 16MM HARWALD MODEL Q INSPECT-O-FILM is designed for high speed inspection of release prints in libraries and labs. Machine performs inspection without any attention from operator except to load and unload and perform the necessary film repairs when machine stops. Has sound reading and viewing facilities plus power operated auxiliary feed and take-up spindles for fast and accurate editing. Scotch tape splices, pins, broken film, weak splices, torn sprocket holes, are all detected and machine stops automatically for repairs. No sprocket drive except on footage counter and Editor Viewer. Film contacts only soft rubber and chrome. Will handle 2000 ft. reels of silent or sound film at variable speeds up to 450 feet per minute. Requires only 600 watts on 110-120 volt AC, 50-60 cycle current.



U7324 16MM HARWALD MODEL U MARK II INSPECT-O-FILM is similar to Model Q but has the following additional features: increased speed to 800 feet per minute, three jewels to detect sound track defects, elongated sprockets and notches. Modified drive system uses only one belt, electro-magnetic braking. Improved illumination for operator. Ultra smooth drive eliminates snap starting. Equipped with Harwald's originated "Plug-In" interchangeable service modules. All console style machines can be used with electronic cleaning and condition unit. Can be duplexed — used as double "L" or double "H".

U7325 16MM HARWALD DELUXE MODEL U MARK II INSPECT-O-FILM is same as above unit but has large table, magnifier, electronic loading, special wind switch and other deluxe features. Write for details.

U7326 16MM HARWALD MODEL U SPECIAL IN-SPECT-O-FILM is an ideal unit for the small library. Designed with ample space for adding most Mark II features. Very easy to use. Full console size with large work surface. Features easy eye-level loading and is equipped with Triple Jewel Detection System.

16MM HARWALD MARK IV INSPECT-O-FILM offers the ultimate in automatic film inspection. Has auto-load and electronic scratch detection with automatic recording and splicing. Designed for those who desire every possible feature. This advanced styled unit answers the needs of the film libraries of the future. The Mark IV has been put into pilot production to meet demands of leading commercial libraries who must furnish customers proof of print condition. Has such advanced features as: eye-level loading, triple jewel sensitive low pressure de-tection, console and large work surface design. It gives an electronically written graph of the degree of film scratching by the foot so that libraries and sponsors can judge print quality on an objective basis. Equipped with selective on an objective basis. Equipped with selective detection, radioactive plutonium anti-static protection, no-scratch vacuum cleaning of film and ultra smooth direct drive system. Ideal for duplex and other multiple machine arrangements. Write for full details.



U7003 16MM HARWALD PROTECT-O-FILM CLEANER AND CONDITIONER applies Protect-O-Film cleaning solution to 16mm film at speeds up to 1000 feet per minute. Provides excellent cleaning action and makes film scratch resistant and anti-static. Uses high-pile velvet or "throw-away" flannel tapes moving opposite to the film to gently scrub out dirt and oil: Fluid feed is electronically controlled providing correct amount of fluid on cleaning cloth at all times regardless of the speed of operation. Efficient exhaust is provided to eliminate fumes from working area. Machine can be used as an attachment to any Inspect-O-Film machine, between rewinds, or on the dry end of a film developing machine. Uses 1 quart of Protect-O-Film fluid 101X or 201X per 100,000 feet of film. Please specify type of electrical power available when ordering. 35mm or other size machine available on special order.

U7004 30 ft. velvet cleaning tapes, Type C, per pair

U7005 75 ft. disposable flannel cleaning tapes, Type D, per pair

U7006 Protect-O-Film Fluid 101X is ideal for use on release prints used for continuous projection, as well as general purpose cleaning and lubri-

cation. Available in pints, quarts, gallons and 20 and 55 gallon drums (please specify).

U7007 Protect-O-Film Fluid 201X is a formula which is balanced for use on originals and intermediate negatives in processing laboratories. Available in pints, quarts, gallons and 20 and 55 gallon drums (please specify).



U9650 35MM NEUVATOR FILM CLEANING MACHINE automatically cleans, polishes and rewinds film in one operation. Film runs through
bath of non-toxic RENOVEX, past 3 sets of
double squeegees, which remove all dirt, foreign
matter and excessive solution. Polishing rollers
"buff" both sides of film prior to being rewound on take-up reel in a perfectly dry and
clean condition. Cut-off mercury switch idler
and absence of sprocket teeth insure safe
scratch-free operation. Heavy all steel housing
finished in finest black crystal, polished chrome
hardware, rollers, knobs and other trim. 1,000 or
2,000 ft. capacity (specify).

U9751 16MM NEUVATOR FILM CLEANING MA-CHINE is similar to above but for 16mm film. Accepts 400 to 2,000 ft. reels.

U8556 NEUVATOR STAND is constructed of steel with utility shelf and reel rack below, plus drawer for supplies.

U9659 NEUMADE SQUEEGEES are chemically treated molded rubber specially designed for gentle but positive action. Sold in dozen lots only.

U9653 16MM NEUMADE FILM POLISHER AND CLEANER MODEL \$-1001 is ideal polisher for negative or positive films. Machine drilled for mounting between rewinds. Two silk velvet ribbons polish both sides in same operation. One yard of cleaning surface on each ribbon. When exposed surface becomes soiled simply turn up a fresh cleaning area. Tension is adjustable. Will not scratch film.

U9654 35MM NEUMADE FILM POLISHER AND CLEANER MODEL S-1000 is similar to above but is designed for 35mm film.

U9655 Neumade Polishing Roll, one yard silk velvet

U9656 35MM NEUMADE FILM WAXER MODEL FW-1 clamps on table between rewinds. Has adjustable mechanism for perfect alignment. Film is quickly and easily inserted. Two strips of specially prepared film wax are pressed with exactly the right tension to perfectly wax both edges of film simultaneously.

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editing accessories

U9657 NEUMADE FILM WAX is a special formula resulting from years of research. Made for use with FW-1 Waxer. Non-spreading, will not run over on emulsion. Provides perfect edge lubrication.

U9651 16/35MM NEUVATOR "2 IN 1" CLEAN-ING MACHINE is designed to clean both 16mm and 35mm film. Film enters tank containing cleaning fluid and comes out through rubber squeegees having six rubber wipers. Then passes through three roller buffers to wipe excess fluid along perforations. Both emulsion and celluloid sides are polished. Cotton flannel on buffers can be reversed so that both sides may be used. Cleans 1600 feet of 16mm film in 10 minutes; 2000 ft. of 35mm film in 12 minutes.

U9652 Neumade Standard Film Cleaning & Preserving Fluid

U9658 NEUMADE RENOVEX is the world's finest film cleaning solution. For machine or manual use. Non-toxic, anti-static, non-inflammable. Dust will not adhere to treated film. Insures smooth, clear, sharp projection. One application seasons "green sticky" prints.

U8055 FILM EDITING GLOVES are white, full fashioned, knitted fabric. Excellent wearing quality, will launder well. A must for handling negative or color film. Available in standard or lightweight, with or without hem, for men or women (please specify).

U6575 NEUMADE RAZOR BLADES are of rigid construction with reinforced back for safe handling. Box of 100 blades.

NOTE: Film editing tables, inspection tables and assemblies, film vaults and storage cabinets, film separator racks, reel rack roller trucks, shipping and mailing room tables, film measuring machines and film waxing and polishing machines in various types and sizes are available or can be supplied to your specifications on order.

FILM EDITING ACCESSORIES

T7065 16MM HARWALD PREMIER CORE HOLDER ends the search for cores. Cores are neatly stacked in spring steel tube which mounts on wall, editing bench or other vertical surface.

T7066 35MM HARWALD PREMIER CORE HOLDER is similar to above but will accommodate both 32mm and 35mm cores.

U8991 16MM HARWALD BLOOP PUNCH is used for negative optical sound track de-blooping. Film is pin registered and punched with a very precise die. Produces completely quiet splices in the print. Suitable for both variable area and variable density, single ended or push-pull, sound tracks.

U8992 35MM HARWALD BLOOP PUNCH is similar to above but is designed for 35mm film.

NOTE: If you are planning a modern progressive film library write Gordon Enterprises for Harwald's famous "Past and Future" literature. Experienced sales engineers will analyze your film handling problems and aid you in setting up and maintaining an efficient, economical and trouble-free film inspection system.

U7327 HARWALD PROFESSIONAL OPERATOR CHAIR is designed for maximum comfort. Has six separate adjustments.

NEUMADE NUMBER & ALPHABET PUNCHES are individual punches ½ inch or 3/16 inch high (please specify).

U3010 NEUMADE NUMBER PUNCHES: set of ten numbers, 0 through 9.

U3011 NEUMADE NUMBER PUNCH: individual numbers (specify number).

U3012 NEUMADE LETTER PUNCHES: set of 26 letters.

U3013 NEUMADE LETTER PUNCH: individual letters (specify letter.)

SHIPPING CASES

16MM FIBRE NON-VULCANIZED SHIPPING CASES will hold the following size 16mm reels in cans:

U9001 Two 800 ft. reels

U9002 Three 800 ft. reels

U9003 Four 800 ft. reels

U9004 Two 1200 ft. reels

U9005 Three 1200 ft. reels

U9006 Four 1200 ft. reels

U9007 Two 1600 ft. reels

U9008 Three 1600 ft. reels

U9009 Four 1600 ft. reels

U9010 Two 2000 ft. reels

05010 1 WO 2000 It. 10013

U9011 Three 2000 ft. reels

U9012 Four 2000 ft. reels

16MM FIBRE HEAVY-DUTY SHIPPING CASES will hold the following size 16mm reels in cans:

U9020 Two 800 ft. reels

U9021 Three 800 ft. reels

U9022 Four 800 ft. reels

U9023 Two 1200 ft. reels

U9024 Three 1200 ft. reels

U9025 Four 1200 ft. reels

U9026 Two 1600 ft. reels

U9027 Three 1600 ft. reels

U9028 Four 1600 ft. reels

U9029 Two 2000 ft. reels

U9030 Three 2000 ft. reels

U9031 Four 2000 ft. reels

35MM 1000 FT. CAPACITY FILM SHIPPING CANS are I.C.C.—32A approved. Constructed of heavy-gauge galvanized iron. Will hold the following 35mm 1000 ft. reels (no cans) up to 10 inch diameter:

U9050 One reel

U9051 Two reels

U9052 Three reels

U9053 Four reels

35MM 2000 FT. CAPACITY SHIPPING CASES are octagon-shaped. Fully approved I.C.C. construction. Will hold the following 35mm 2000 ft. reels (no cans) up to 14½ inch diameter:

U9060 One reel

U9061 Two reels

U9062 Three reels

U9063 Four reels

PROJECTORS of every kind pages 96 - 101

	REELS & CANS											
	50′	100′	2001	400′	600′	800′	1000′	1200'	1600'	2000'	3000'	5000
35MM CANS		K7001		K7002			K7003			K7004		
35MM STEEL REELS		K7005		K7006			K7007			K7008	K7009	
35MM ALUMINUM REELS		K7010								K7011		K7012
35MM WIRE REELS							K7013			K7014		K7015
35MM ALUMINUM SCREW-APART REELS							K7016			K7017		
35MM PLASTIC SCREW-APART REELS							K7018					
16MM CANS		K7019	K7020	K7021	K7022	K7023		K7024	K7025	K7026		
16MM STEEL REELS			K7027	K7028	K7029	K7030		K7031	K7032	K7033		
16MM PLASTIC REELS	K7034	K7035		K7036								
16MM ALUMINUM REELS				K7037		K7038		K7039				
16MM ALUMINUM "SCREW-APART" REELS				K7040	K7041	K7042		K7043	K7044	K7045		
16MM STEEL "SCREW-APART" REELS				K7046	K7047	K7048	K7049	K7050	K7051	K7052		
17½MM PLASTIC "SCREW-APART" REELS							K7053					
171/2 MM ALUMINUM "SCREW-APART" REELS				K7054			K7055	K7056		K7057		
17½ MM STEEL "SCREW-APART" REELS							K7058			K7059		



MOTION PICTURE EQUIPMENT

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P5099 16MM BELL & HOWELL MODEL 5205 JM is a continuous printer, featuring a 100% ball-bearing film transport system that will extend the printing life of any film. Built-in edge light allows key footage numbers to be printed in absolute synchronism right at the aperture. New improved feed and take-up flanges will handle 2000 feet of film. Compact electrical distribution panel under shelf of triplex base. Two speed direct motor drive provides speeds of 60 or 120 feet per minute, 4-way aperture drum, rotating support shoulder, internal air pressure at aperture, roller gate, swinging service table, 300 watt lamp (voltmeter control), push-button start and stop. Printer is prewired to accept accessory sound printing head or automatic shutter control.

P5001 35MM BELL & HOWELL CONTINUOUS FILM PRINTER (Design 5205DC). With 5-way aperture for printing sound or picture by contact. Fitted with Super Intensity 300 watt Lamp Assembly. Includes 3 speed synchronous drive for printing at 60, 90, and 120 feet per minute. Torque motor take-ups.

NOTE: 16mm Bell & Howell Model J and 35mm Bell & Howell Model D Continuous Film Printers are available reconditioned at a considerable saving.

modification -

Gordon Enterprises Engineering Department, Precision Machine Shops and Assembly Shops are eminently qualified to make all types of custom adaptations, so that standard motion picture and instrumentation cameras may be altered for special filming assignments. Lens Turrets, Lenses, Magazines, Torque Take-up Motors, Timing Lights, Tracking Finders, Heaters, etc. may be adapted to stock cameras to extend their capabilities. Write us about your specific requirements and we will be pleased to provide engineering proposals and quotations.

N5008 HOUSTON FEARLESS COLOR FILTER CHANGER when installed on a standard Bell & Howell Model "J" or "D" printer, automatically changes color correction filters from scene to scene as predetermined. It consists of a high-intensity lamp house and traveling filter matte system, attached to the printer by means of an adapter casting fitted between the pedestal and the lamp house.

P5002 16MM BELL & HOWELL CONTINUOUS COLOR PRINTER — ADDITIVE TYPE (Design 6100). Completely automatic printer providing scene to scene color and density corrections through the use of coded control tape. Light Source of 1000 watt intensity split into 3 primary colors using dichroic filters. Each color beam independently attenuated by means of radially movable vanes. 30 exposure steps of .025 log E are available, plus 6 steps of filter correction. All color and density changes made on the frame line. Printing speed 150 feet per minute. Synchronous motor drive. Torque motor take-ups. 3 adjustable fade lengths. Push button start with automatic stop within 2 frames. All controls illuminated.

P5003 35MM BELL & HOWELL CONTINUOUS COLOR PRINTER — ADDITIVE TYPE (Design 6200). Identical features as described for design 6100 except for 35mm film.

N5004 BELL & HOWELL PROGRAM PERFOR-ATOR (Design 6170). Used to produce the coded tape necessary for automatic printer control. Uses 8 hole Commercial Control tape. Code information includes scene color change, scene density, fade lengths, printer start and printer stop. Has separate scene and color counters. Switch converts to black and white programming when using design 6220 Automatic Shutter Control.

N5005 16MM BELL & HOWELL SOUNDHEAD ASSEMBLY (Design 6190). Provides for one pass printing of composite picture and sound from separate picture and sound negatives. Available as factory installed accessory on new 16mm Printers or in kit form for field installation on existing printers. No special tools required.

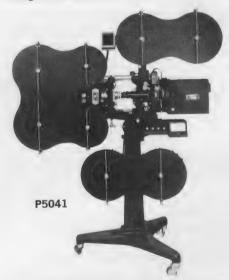
N5006 35MM BELL & HOWELL SOUNDHEAD ASSEMBLY (Design 6210). Identical features as described above except for 35mm film.

N5007 BELL & HOWELL AUTOMATIC SHUTTER CONTROL (Design 6220). Replaces manual shutter dial operation with automatic mechanism consisting of tape reader and electro-selector. Reader uses 8 hole program tape. Provisions for printer start, run, stop and repeat in event loops are printed. Also provides pulse for fader operation.

P5040 CARLSONCRAFT DEPUE NO. 3 OPTICAL PICTURE REDUCTION PRINTER MODEL 50, No. 4.5-50 will perform the following operations:

- Reduce from 35mm negative to 16mm positive prints.
- Contact print from 35mm negative to 35mm positive prints.
- Contact print from 16mm negative to 16mm positive prints.
- Enlarge from 16mm negative to 35mm positive prints.

The machine operates at a speed of 45 feet per minute on the 35mm head and produces a speed of 18 feet per minute on the 16mm head. Laboratories employ the Depue light control board in conjunction with this unit to automatically change the intensity of the light as required.



P5041 CARLSONCRAFT DEPUE NO. 3-K OPTICAL PICTURE REDUCTION PRINTER MODEL 50, No. 2.3-75 is similar to the above but possesses the following additional features: Base Extension, air-cooled lamphouse, 500 watt lamp, roto-dial filter changer, footage counter, 75mm f/2.3 B&L Baltar coated lens. This model is recommended for color printing.

P5042 CARLSONCRAFT DEPUE NO. 3-K OPTICAL PICTURE REDUCTION PRINTER MODEL 53 is a 1 to 1 optical printer with two 16mm heads (instead of one 16mm and one 35mm head). It is equipped with 103mm f/2.8 E.K. Ektar lens, base extension, air-blower, cooled lamphouse, 500 watt lamp, roto-dial filter changer and footage counter.



N5046 CARLSONCRAFT DEPUE MICROFILM PRINTER No. 49-35-16 will handle perforated or non-perforated black and white 35mm regular positive film or slow speed fine grain film at 94 feet per minute. The Depue Light Control Board is used in conjunction with this unit to automatically change the intensity of the light as required.

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. . . see pages 78 through 80

CARLSONCRAFT DEPUE AUTOMATIC LIGHT CONTROL BOARD is a separate unit with provisions for electrical connection to motion picture printing machines. The light control board provides twenty-two standardized degrees of picture printing light intensity in any predetermined order or sequence including the repeated use or intermittent use of the same degree of light intensity as may be necessary for correct printing from negatives or positives. Because of varying density, a great number of changes may be required and these changes are automatically made as the interrupter on the printing machine responds to timing notches on the negative.

N5043 Model 50, No. 75 Scene Automatic Light Control Board.

N5044 Model 50, No. 112 Scene Automatic Light Control Board.

N5045 Model 50, No. 152 Scene Automatic Light Control Board.

P5010 35MM ARRI HIGH OUTPUT CONTINUOUS PRINTER MODEL B III BT is designed for simultaneous printing of picture and sound track. Incorporating claw system, with mechanically controlled pendulum gate, feed and take-up arms for 2000 foot capacity. Fully automatic light change by means of a diaphragm control punched tape regulation. Features high intensity lamp house and concentrated optical system. May be manually operated for control of sound copying light. Capacity: 2850 foot per hour.

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printing accessories



P7051 FISH-SCHURMAN HIGH-SPEED HEAD for Bell & Howell Contact Printers Model D (35MM) or J (16MM) is a compact high-speed head with a single light source which permits continuous black-and-white printing at 200 ft. per minute. The lamphouse is designed for a 1000 watt T-12 bulb with blower. Bulb alignment is easily made in darkness simply by adjusting three knobs which provide for vertical, transverse, and rotational motion of the bulb. One electrorotational motion of the bulb. One electromechanically operated light valve provides changes in 6 milli-seconds which show as a scene change flash of $\frac{1}{3}$ of a frame. The light valve is controlled by 5 small solenoids to provide 32 printer steps of .025 or .030 Log E. Light valve opening may be adjusted to compensate for stock changes without altering the 32step arrangement. This high-speed head can also be used for color printing with balanced inter-color negative. The highly efficient optical system contained in the casting provides uniform light on the aperture of the B & H transport. A cold mirror of the effective interference type is used so that very little heat reaches the printing aperture. Heat absorbing glass is eliminated. No skilled technician is required to operate the high-speed head. The entire programming of the scene to scene changes including start, stop, and lap dissolves is automatically accomplished by the use of an 8-hole punched tape reader and memory unit.

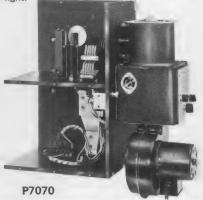
P7052 ONE-CHANNEL MEMORY UNIT with reader for automatic operation of the light valve stores the introduced information using an 8-hole punched tape reader. It permits the printing of scene changes as small as 3 inches in length and storing of 32 printer steps plus start, stop, and lap dissolves. For easy servicing, commercially available 8-hole punched tape reader is used as a base.



P7055 FISH-SCHURMAN 3-LIGHT ADDITIVE COLOR COMPENSATING HEAD fits Bell & Howell

Continuous Printer Model D (35MM) & J (16MM) and Depue-Carlson and Andre Debrie Step Printers. (Please specify make and model of printer.) Unit supplies discrete blue, green and red beams. No one beam contributes to contamination of the others. Solenoid-operated, calibrated neutral density glass filters. Five filters in each color beam, giving 32 printer steps of .025 or .030 Log E. High efficiency interferencetype dichroic beam splitters form a single mixed output beam. Colored glass and/or high efficiency interference-type trimming filters, "peaked" to the positive stock sensitivity. Printing speed up to 125 feet per minute for continuous printing: 55 feet a minute for step printing. Three 750-watt bulbs, operating at 60-80 volts assures long bulb life, saving time in calibration. Adjustable lamp sockets to line up filaments. Three degrees of freedom; vertical, rotational, lateral. Four-leaf adjustable diaphragm, imaged at the printing aperture, provides an optical printing aperture for exposure and/or uniformity control (on units to fit Bell & Howell Models D & J only).

P7065 FISH-SCHURMAN HI-SPEED ADDITIVE COLOR COMPENSATING HEAD for Bell & Howell Continuous Printer Models D & J is a compact high-speed unit with a single light source which permits continuous printing at 200 ft. a minute. The lamphouse is designed for a 1000 Watt T-12 bulb, has quartz optics, focusing mount and blower. Adjustments are easily made in darkness simply by adjusting three knobs which provide for vertical, transverse and rotational motion of the bulb. Three electro-mechanically operated light valves provide color changes in 5 milliseconds. Each light valve is controlled by 5 small solenoids to provide 32 printer steps of .025 or .030 Log E. Light valve opening may be adjusted to compensate for color stock changes without altering the 32-step arrangements. The utmost light efficiency is obtained by the use of 6 interference-type multi-layer all-dielectric beam splitters, and by the elimination of absorbing trimming filters. The heat absorbing glass is eliminated and a cold mirror, of the interference type, is used instead. All of the interference beam splitters are cemented and therefore permit easy cleaning without risk of damage. Separation of color bands is accomplished without overlap and with very little loss of light.



P7070 FISH-SCHURMAN MODULATOR AND LIGHT SOURCE Model R-BW for Depue-Carlson Step Printer has a highly efficient optical system which provides uniform light on the 35mm aperture of the Depue-Carlson Transport. A cold mirror of the effective interference type and a heat absorber are used so that very little heat reaches the printing aperture. Modulation of the light is achieved by means of 5 AC solenoid-actuated neutral density glass filters, giving 32 printer steps in increments of .025 or .030 Log E. The black-and-white model is supplied with

a blue trimmer and 5 neutral glass filters calibrated for blue light. Contained in the optics housing are a special shutter and lamphouse position sensing switch. The lamp house is designed for a 1000-Watt T-12 bulb with blower. Bulb alignment is easily made in darkness simply by adjusting 3 knobs which provide for vertical, transverse and rotational motion of the bulb. A damping cylinder prevents mechanical shock to lamp filament during opening and closing. A mounting block and hinge plate are supplied for attachment to the Depue-Carlson Transport Model 3-K #50. Similar mounting is available for older models. This unit is adaptable to automatic control using punched tape or modified drop board.



P7085 MEMORY UNIT WITH READER is a 3-channel Memory Unit with Reader for automatic operation of flipper assembly, reading in succession blue, green, red and storing the introduced information. 15 neon pilot lights indicate when the 15 neutral density filters are in or out so that the operator can see at a glance if Reader and Memory Unit is functioning properly. For easy servicing, commercially available punched tape reader is used as a base.

P7087 DECODER AND VERIFIER for 5-hole punched tape with readout in decimal system and requiring only two Nixie readout lamps.

See tripod section for complete selection of tripods, dollies and cranes.

P7075



P7075 KEYBOARD AND PERFORATOR Model KP has 32 characters which are automatically encoded for 5 hole punched tape. After striking a key, corresponding to the desired character, the space bar is pressed causing the Perforator to provide the corresponding code in the tape. Depressing the space bar also operates a counter. The Keyboard and Perforator permit automatic reperforation (duplication) when used



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with a 5-channel reader, and editing with new information. It was originally designed for automatic color motion picture printing operation, in particular the automatic selection of scene to scene exposure values permitting 32 steps for each color: blue, green, and red. A similar Key-board and Punch, however, can successfully be adapted to other industries. The Reader makes internal electrical contacts depending upon the presence of holes in the tape rather than making the contacts through the tape itself. The simple binary system is capable of storing 32 separate bits of information.

P5028 16MM HERRNFELD SOUND PRINTER MODEL 1517-B is especially designed as a companion to the Bell & Howell Model J printer. It is a "B" wind printer, making rewinding of the positive unnecessary when first printing the picture on "A" wound film on a Model J printer. The printer may be used for either black-and-white or color work. The film flanges hold 1200 feet of film. It prints at the rate of 86 feet per minute.

N5030 HERRNFELD ADDITIVE COLOR LIGHT SOURCE MODEL 1533 FOR BELL & HOWELL MODEL D PRINTER consists of a punch, a pickup unit and a lamphouse. The punch utilizes 70mm wide film with .187 pitch perforations for tape. Nineteen punches are used to convey all necessary information to the pick-up unit, which controls both light intensity and color balance. The pick up unit works on a power driven escapepick-up unit works on a power driven escape-ment principle and is operated automatically by the contactor of the printer, or manually by a pushbutton. The lamphouse uses a single light source. White light is separated into three primary colors and re-combined with dichroic

THE TREND TO 8MM SOUND

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N8675 16MM TO 8MM HERRNFELD OPTICAL REDUCTION PRINTER is a daylight operated step printer. Will copy either black and white or color negative or reversal 16mm films onto black and white or color positive or reversal double-8mm perforated film. Printing speed about 23 feet per minute on 16mm side. Light source is a high current pre-focus base lamp. Optical system provides sufficient light to print positical system provides sufficient light to print posi-tive color film at twice the speed of the printer. Provisions are made for inserting emulsion color correction and neutral density filters to permit use of printing films with different speeds and color balance. Printing may be monitored through a built-in magnifying rear-view arrangement. Equipped with f/2.5 lens. 400 ft. Mitchell magazine (not included) is used

N8676 Plastic (re-usable) Color Correction Filter Holder

Electric 4-digit Footage Counter N8677

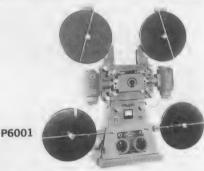
N8678 Electric Pre-determining Counter

B1104 16MM Mitchell Magazine

N8679 Lamp Control Model 1529-K



P5031 16MM HERRNFELD CONTINUOUS MO-TION PICTURE PRINTER MODEL 1557 makes contact prints from 16mm negatives onto 16mm positive, or from 16mm reversal onto 16mm reversal printing films. It is sprocket driven and will operate at a rate of 40 feet per minute. Any one of four apertures can be selected; sound, negative to positive, picture only, or full aperture



P6001 35/16MM UHLER OPTICAL REDUCTION AND ENLARGING PRINTER will reduce 35mm to 16mm and enlarge 16mm to 35mm in color or black and white. Equipped with filter slides to accommodate gelatin filters to print color. Accuracy assured by precise 16mm and 35mm claw movements. Will make good prints from old or shrunken film. Sufficient light for exposing fine grain film. Picture is step printed with color corrected optical system. Aperture and pressure plates are highly polished stain-less steel. All shafts run in ball-bearing or Oilite cushion bronze. Lamps are cooled by quiet high speed blowers. Semi-automatic dual light controls, one scene set in advance of the other and light changes as notched film passes through. Will reduce 3500 feet of 35mm to 16mm, or enlarge 1400 feet 16mm to 35mm per hour. Printer holds four 1200 ft. feed and takeup discs. Operates on 115 volt AC, 60 cycle power.

16MM UHLER COMBINATION CONTINU-OUS PRINTER will print black and white or color, single or double system sound. Sound and picture may be printed simultaneously. Will handle 1200 feet of negative, positive and sound track at printing speeds up to 1600 feet per hour. Extra large 34 tooth precision cut sprocket provides perfect frame line and prevents film weave. Printing lamps are air cooled by quiet high speed blowers. Sufficient light for exposing fine grain film. Highly polished and by quiet high speed blowers. Sufficient light for exposing fine grain film. Highly polished and precision cut aperture with side pressure on the gate to prevent weave. Semi-automatic dual light controls, one scene set in advance of the other and light changes as notched film passes through. Filter holders provided for printing color film. Operates on 115 volt AC, 60 cycle power.

SENSITOMETERS & DENSITOMETERS

HERRNFELD CONSTANT-TIME, VARIABLE-INTENSITY SENSITOMETER makes sensito metric strips for film investigations or processing control. The film is exposed through an aperture that travels along the film at constant speed. Exposure time may be varied by changing the width of the aperture to correspond to the time of exposure in a camera or printer. The Sensitometer consists of a light source, shutter, optical system with rotating mirror, arc-shaped film exposure platen and an electric timing system.

N5504 Model 1531 without power supply.

N5505 Model 1531-A with a 250 volt-ampere power supply.

N5506 Model 1531-B with a 500 volt-ampere power supply.



Model 1531-C with a 1000 volt-ampere N5507

Appropriate voltage regulating transformer shipped as separate item.

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35MM HOUSTON FEARLESS N5009 signed for laboratories processing and printing color film. It provides a signed for laboratories processing and printing means for maintaining correct color balance from one emulsion type to another, making color corrections in printing and for maintenance of solution strength in the processing equip-ment. Both filter correction and sensitometric control are provided in this single piece of equipment. Its operation is essentially manual, as-sisted by an automatic printing exposure cycle. A scene can be selected through the viewer, a series of exposures made using 15 different color filters, and the film advanced to the next A viewer, illuminated independently, enables the operator to select scenes to be tested. Guide lines on viewer facilitate lining up negative for printing. Two platens are provided, one for the color filters and one for the sensitometric strips. For sensitometric control, a photographic step tablet with added color blocks is provided.

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HERRNFELD COLOR DENSITOMETER measures the light transmission of color motion picture film in the blue, red and green bands. It also measures diffuse density of black-and-white film. The Densitometer is furnished complete with photoelectric cell, tubes, power unit and a sixty cycle voltage regulating transformer. They differ only in the number and type of filters.



N5500 Model 1503-A is equipped with standard glass filters.

N5501 Model 1503-B is equipped with equivalent of Status "A" filters.

N5502 Model 1503-C is equipped with equivalent of Status "K" filters.

N5503 Model 1503-D is equipped with equivalent of Status "A" & "K" filters.

N6539 MACBETH-ANSCO COLOR DENSITO-METER is a precision electronic photometer of direct reading type. Has extremely high sensitivity permitting accurate measurement of color densities in narrow spectral ranges (blue, green, and red) as well as visual densities over unusually wide range. With accessory equipment, reflection densities of opaque samples and transmission densities of liquids can be measured. Will measure the density of black and white and color films, extremely small areas of negative and positive transparencies (micro-densitometry) and extremely wide range of illum-ination levels. Also determines color temperature. All requirements of rapid operation, dependability, and versatility have been met in this attractive, compact instrument. Does not rely on human judgment for determining photometric values. Automatic, dial-indicated reading prevent inaccuracies caused by fatigue or lack of training.

N7630 BAUSCH & LOMB DENSITOMETER is a precise, projection type, photo-electric instrument for measuring light transmitted by spectrum lines on photographic plates and films. Freedom from extraneous light interference permits use in daylight. Readings may be made directly from the built-in meter or records can be made by plugging in a standard electronic recorder. Projection of a comparison spectrum, a motor driven plate holder with variable speed, maintenance of operating temperature for intermittent work and grouping of controls at arm level are but a few of the features. Operation is from a 115 volt AC, 60 cycle line. A projection lens of high aperture and resolving power, in a focusing mount above plate, projects an enlarged image of the entire illuminated area on a vertical white screen at eye level. Output of the amplifier is indicated on a Weston Micro-ammeter which reads directly in percent transmittance of the spectrum line or other area the image of which is projected on the slit. A film holder for 35mm black and white or color film is provided.

SCENE TESTERS

HERRNFELD SCENE TESTER takes the place of a Cinex machine in making 16mm or 35mm color prints. The primary function is to make it possible for the timer to select for a given color original or dupe the proper color-correction filters and printing densities.



N5025 Model 1508-B for 35mm N5026 Model 1508-C for 16mm

N5027 Model 1508-D for both 16mm and 35mm

FILM SLITTERS

PRECISION LAB FILM SLITTERS are constructed with a heavy steel base. Rotary slitting blades are machined from high carbon high chrome steel mounted in needle bearings. Manufactured to SMPTE standards.

Q3051 FILM SLITTER: 35MM to 17.5MM

Q3052 FILM SLITTER: 32MM to Double 16MM

Q3053 FILM SLITTER: 16MM to Double 8MM

N5029 HERRNFELD COLOR SCENE TESTER MODEL 1532. Designed to make scene to scene tests for color and light intensity for motion picture release work. It uses three separate light sources: one for the red, one for the green and one for the blue sensitive layer of the printing film. The optical system for each source is similar to that of Model 1531 Constant-time, Variable-intensity Sensitometer, all three utilizing the same objective lens. The Scene Tester exposes fifteen frames of film per cycle of operation. Each frame receives a different combination of exposures. The unit is complete for operation upon installation and calibration. It is shipped with all necessary controls, lamps, and a constant voltage transformer.

LETTERING PENS

SPEEDBALL LETTERING PENS are available in four styles: A-Square, B-Round, C-flat and D-Oval; and in seven sizes from 0 to 6 (smallest number is largest size). Excellent for hand lettered titles.

Y7530 SPEEDBALL LETTERING OUTFIT NO. 1 has 25 assorted Speedball pens, penholder, book on lettering and practice paper.

Y7531 SPEEDBALL LETTERING OUTFIT NO. 2 has 9 Speedball pens, penholder, and book on pen lettering showing basic alphabets.

Y7532 SPEEDBALL LETTERING OUTFIT NO. 5 is handy pocket size and has 4 Speedball pens, penholder and lettering and pen drawing folder.

Y7533 SPEEDBALL TEXT BOOK contains 88 pages of instruction with illustrations in the various techniques of lettering and poster design.

INKS

Y7575 GRUMBACHER BLACK INDIA DRAWING INK (1455) does not crawl on acetate cells. This dense black, opaque, waterproof ink is especially formulated for pen and brush drawing on acetate, vinyl, mylar, etc. Can be used as an overlay ink for tracing, outlining, opaquing and drawing wherever close register is important such as in cartoon work. Contains "Lixium" pen cleaning solvent which makes ink free-flowing. Bottle has snap-on safety cap with dropper filler. Available in 1 oz., 8 oz., 16 oz. and 32 oz. bottles. Please specify size and number of bottles when ordering.

Y7576 GRUMBACHER COLORED DRAWING INK is available in 1 oz. bottles in 17 assorted colors: Blue, Brick Red, Brown, Burnt Sienna, Carmine Red, Light Green, Deep Green, Indigo, Neutral Tint, Orange, Red, Red Orange, Red Violet, Turquoise, Violet, White and Yellow. Please specify colors desired when ordering.

Y7577 GRUMBACHER COLORED DRAWING INK SET consists of 12 assorted colors in 1oz. bottles: Blue, Brick Red, Brown, Light Green, Deep Green, Indigo, Orange, Red, Red Orange, Violet, White and Yellow.

BRUSHES

Y7325 GRUMBACHER "GRAPHIC ARTS" SELECTED PURE RED SABLE BRUSHES have natural tips hand cupped to long-tapered, needlesharp point. Slim shape affords easier control and better flow of opaque colors and masking inks. Ideal for transparent water color, designers' colors and drawing inks. Rustproof nickel plated seamless ferrules firmly fastened to polished walnut handles. Available in 11 sizes from 000 (9/32 inch hair length) to 8 (1 1/16 inch hair length). Please specify size desired.

Y7326 GRUMBACHER "SPOT-RITE" FINE PURE RED SABLE BRUSHES have natural tips hand cupped to needle-sharp point. Short hair length. Used extensively by photographers, photoengravers and artists for retouching, spotting, opaquing and for cleaning up lettering and type to be reproduced or photographed. Rustproof nickel-plated seamless ferrules securely attached to ivory albata handles. Available in 10 sizes from 00000 (3/16 inch hair length) to 5 (9/16 inch hair length). Please specify size desired.

PAINTS

Y7580 GRUMBACHER CEL-TESTED COLORS are excellent for animated cartoons and titles because they adhere to acetate without crawling. The cell surface need not be cleaned, specially prepared with talc or otherwise treated. Colors lie flat and smooth in closest register whether applied with pen, brush or air brush. They are water soluble and cover with a single application. Colors contain no alcohol or other solvents. Cell surface may be washed and re-used indefinitely. Finely ground colors are specially formulated so that they may be placed in front of high temperature lights for long periods without peeling, flaking or popping off. Cells can be safely stacked without danger of "tack up" upon contact. Corrections are easily made. Excess color can be removed with a brush handle. Colors are densely opaque and may be used directly from jar with just sufficient water to aid flowing, or tinted with Mixing White, or mixed to provide any desired color. Solo White is used for white alone. A special Transparent White is available for "ghost" effects. Twelve shades of gray (1 is lightest, 12 is darkest) and 17 colors are available: Black, Blue, Blue Green, Blue Violet, Light Brown, Deep Brown, Green, Orange, Red, Red Orange, Red Violet, Vermillion, Violet, Yellow, Yellow Green, Yellow Ochre and Yellow Orange. Available in 2 oz., 8 oz. and 32 oz. jars. Please specify size, color and number of jars when ordering.

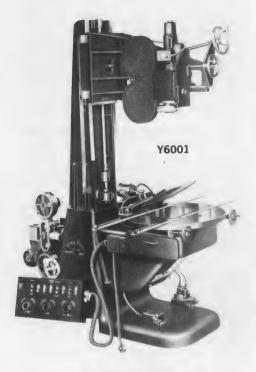


MOTION PICTURE EQUIPMENT

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animation equipment

ACME



Y6001 ACME ANIMATION STAND can be supplied with either 16mm or 35mm Camera or both. The change from 16mm to 35mm can be made in a few minutes. Camera has electrical infinite variable speed zoom, ranging from 4 to 12 inches in width of field, and calibrated in field widths; so one can tell at any point how wide a field is being photographed. Lens is automatically adjusted for focus throughout the zoom. Camera can be moved 6 inches north and south, and 9 inches east and west, and its position read on a counter in hundredths of an inch; so as to locate the center of the lens in reference to the objective, making it possible to follow any curve, line, or spiral, which operator might desire to truck. Two calibrated eastwest pan movements and two hinged sets of pegs make it possible to film the illusion of depth. Registration is provided for a 14 inch vertical pan. East-west pan movements have counters and can be read in hundredths of an inch. Platen operates on forty pounds air pressure by means of a foot pedal, and has shock absorbers on the end of the up and down stroke. Every move on the stand is equipped with a counter so that any position can be relocated. There is a removable drawer of background lights for photographing transparencies, controlled by a variable transformer. Top lights have individual volt meters and variable transformers for each light. NOTE: Rebuilt animation stands of various types are available at reasonable prices.

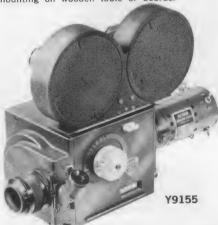
Y6002 ACME SLIDING CELL BOARD WITH COUNTER is graduated in 20th of an inch with counters reading in 100ths. Enables operator to check animation and registration. Back-lash compensator to compensate for locating #500 on zero in either direction.

Y6003 ACME SLIDING ANIMATION BOARD WITH DOUBLE BAR has pegs above and below the field in sliding bars. Glass inset in working area. Board machined to nest in hole in table for rotation.

Y6004 ACME HARDENED TOOL STEEL CELL AND PAPER PUNCH punches one .250 round hole on center and on .125" x .500" hole 4" either side of center. Has locating pegs for punching long cells. Will punch paper, celluloid and thin metal. Operated by foot pedal.

Y6005 ACME INKING BOARD has top and bottom pegs spaced $10\frac{1}{2}$ " apart. Distance from center to output peg 4". Pegs are located within 001 of an inch.

Y6006 ACME PEG BARS consist of a tool steel center registration $\frac{1}{4}$ " diameter and to $\frac{1}{8}$ " and $\frac{3}{8}$ " rectangular registration pegs 4" either side of center, mounted on a dural plate $\frac{1}{8}$ " x $\frac{3}{8}$ " x 10" with countersunk screw holes for mounting on wooden table or boards.



Y9155 16/35MM ACME ANIMATION CAMERA may be operated with interchangeable 16mm or 35mm film gates. Fixed registration pins, located below the aperture, maintain perfect registration for multiple exposures in both forward and reverse directions. Film gate automatically compensates for bi-pack operation. Equipped with full aperture centered on academy aperture. Reflex viewer allows image to be focused through taking lens without "racking over" camera. Has register pins to hold processed film stock in alignment with pins in movement for matte shoot or composite view of objective scene. Camera has safety switch which prevents operation with viewer mirror in aperture. Bi-directional viewing tube allows viewing image in all camera rotational positions. Variable shutter adjusts for zero to 170 degrees. Buckle switch stops camera in event of film jam or faulty take-up. Supplied with 400 ft. 16mm or 35mm Mitchell magazines. 35mm 1000 ft., 16mm 1200 ft. and 35mm 400 ft. bi-pack magazines also available. Automatic take-up (optional) eliminates belts and pulleys and reverses automatically as camera direction changes. Rotoscope lamp house (optional) permits a scene to be projected through camera lens on animation table for matte painting. Stop motion motors is capable of either stop motion or continuous operation. Single speed motor (standard equipment) operates at single speed for $^{1}\!/_{4}$ second exposure only. Optional multi-speed motor provides single frame exposures of $^{1}\!/_{4}$, $^{1}\!/_{2}$, 1, 2 and 4 seconds and an additional 1/16 second exposure for rewind and title work.

Y9156 16mm 1200 ft. Mitchell Magazine

Y9157 35mm 1000 ft. Mitchell Magazine

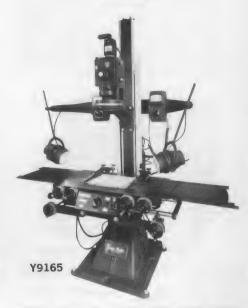
Y9158 35mm 400 ft. Mitchell Bi-Pack Magazine

Y9159 Rotoscope Lamp House

Y9160 Multi-speed Animation Motor

Y9161 Automatic Magazine Take-up

BOWLDS



v9165 16/35MM BOWLDS ANIMATION STAND combines distinctive design and precision engineering with manufacturing craftsmanship. Produces quality animation with great efficiency, accuracy, ease and economy. Handles 3 to 20 field ranges with camera move taking only 15 seconds. 47½ inch vertical camera travel allows extra long trucking shots and permits widescreen filming. 360° rotational camera mount. 26 fields may be reached with certain lenses. 65mm Raptar supplied for 35mm and 32mm Micro Tessar for 16mm. Sleeve-type lens mount "slides" rather than rotates lens and prevents image shift and distortion. Automatic follow-focus (optional) accurately controls focus from 3 to plus 20 fields. Can be disengaged for soft or out-of-focus effects. Large manual focus ring calibrated in quarters of a field. Accurate field guide provided adjacent to vertical guide is calibrated in quarter fields from 3 to 20 fields. Trucking chart and rule (optional) has 96 frame divisions for fast plotting and execution of trucking shots, using diagonals and curves. Small, fully adjustable, low cost lighting system uses 2000 hour 300 watt lamps. Dual controls vary each light independently. 3200°K color temperature achieved by using daylight filters and stepped up voltages. Self-adjusting electric platen unit accommodates quickly interchangeable sizes. Standard equipment includes 12 field platen (9¾" x 14") and 16 field platen (12¾" x 18"). Wide screen platen (9¾" x 20") is optional. Automatically adjusts to thickness of material with even pressure distribution. Eliminates large air compressor required for pneumatic platens. Extremely large table (48" x 18") has working surface 31 inches above floor. All controls located below work surface plane to prevent interference with art work. Table houses a center light well (9" x 20"). Snap-in-snap-out pegs can be set in or removed with simple hook. Eliminates costly and time-consuming peg changes and stripped screw holes. Quick fold-up table extensions (optional) snap into place to give table a length

PHOTO INSTRUMENTATION

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animation accessories

each revolution of control wheel. Decimal scale reads every 1/200th inch. Fractional scale reads every 1/128th inch. Separate measuring scale reads in ¼ inch increments to give actual distance from optical center. Inching buttons control camera movement to smallest possible fractions. Positive locks on all movements are easily set and released. Operates on 110 volt AC.

Y9166 Trucking Chart & Rule

Y9167 Fold-up Table Extension

Y9168 North and South Peg Unit

Y9169 Variable Light Controls

Y9170 Additional Table Peg Bar

Y9171 Wide-Screen Platen

Y9172 Automatic Follow-Focus

Y9175 BOWLDS PRECISION REGISTRY PUNCH for cels and paper features greater punching capacity, precision registry, continuous punching, effortless leverage, adjustable and removable guide. Will not jam. Light, portable and handsomely finished.

Y9176 BOWLDS PLANNING AND CHECKING BOARD High speed model, has decimal and fractional scales and precision gearing. Features double field light panel, longer peg bars, double field increment scale, independent bar operation, smooth pan travel, wide checking range, full vision scale, positive locking on each control wheel and full vision scale which allows convenient reading at outside edge of paper.

Y9177 BOWLDS PLANNING AND CHECKING BOARD Manual model, is similar to above but does not possess decimal and fractional scales and precision gearing.



Y9178 BOWLDS INKING BOARDS feature precision pegs that are rounded and polished so that cels slip on and off easily. Extended width permits artist's hand to work off edge of paper without leaving board. Nonslip backing provides stability. Nonglare surface reduces eyestrain. 12, 16 or Double-12 Fields (please specify).

Y9179 BOWLDS ANIMATION DISC has oversized contoured glass which provides 9½." x 15½." drawing area. Full vision stiding scale with engraved increments of 1/20th inch. Precision pegs, positive locks and oversize turning cutout for easy rotation. Supplied with single panel of double strength clear glass. Opal glass (optional) provides an even distribution of light to reduce eyestrain. Frosted glass (optional) has similar characteristics to opal glass.

Y9180 Opal Glass

Y9181 Frosted Glass

Y9182 BOWLDS PEG BAR is blue anodized finish bar with countersunk holes and flush fitting screws. Precision pegs are designed, rounded and polished so that cels slip on and off easily to reduce the possibility of tearing, scratching, or enlarging registration holes.

PROCESS CAMERAS

A1647 35MM or 16MM .ACME PROCESS CAMERA has film movement equipped with spring loaded presssure plates. Constructed to take 1, 2, or 3 films without adjusting cam. Pressure plate is made of stainless steel, hard chrome plated, to protect against corrosion and assure a scratch free surface. Registration points lapped to within .0001 of an inch. Possible to expose one film in a camera three times, using a different movement each time and still hold perfect registration. When ordering, please specify position of pins, Bell & Howell (above aperture), or Mitchell (below aperture); and size of aperture, full (.980" x .720") or sound (.868" x .631"). Viewer is positive reflex, thus eliminating the necessity of racking over. Viewer has two register pins located in the same position in relation to the aperture as the movement, thus making it possible to view a composite or matte shot by inserting a piece of positive film in the viewer and lining up with the scene. Also possible to reverse procedure by projecting light through positive viewer and projecting image to paint mattes. Camera has a full 170° dissolving shutter controlled from a large knob on door. Dissolves in or out in 1, 2, 3, 4, 6 and 8 foot lengths. Camera has forward and reverse reset foot and frame counter. No pulleys or belts within camera. Entire drive is gear driven with over-riding clutches on both sides of magazine. Film is automatically taken up when camera is running in either direction. Camera uses Mitchell NC magazines. Zeiss 48mm Micro Tessar and Wollensak 65mm Special Raptar lenses are recommended.

A1909 ACME STOP MOTION MOTOR runs forward, reverse, stop motion or continuous. Selector switch to select 1 or 3 revolutions each time the switch is depressed. One revolution is used for black and white and 3 revolutions are used for 3-color successive frame photography.

A1910 ACME VARIABLE SPEED SYNCHRONOUS MOTOR is a 1/15 h.p. 110 volt AC synchronous motor with built in precision transmission. Following speeds available: 24 f.p.s. (1440 RPM); 16 f.p.s. (960 RPM); 12 f.p.s. (720 RPM); 6 f.p.s. (360 RPM); 3 f.p.s. (180 RPM); 1½ f.p.s. (90 RPM). Full power is delivered at all speeds. Furnished with an adapter to fit Bell & Howell, Mitchell, or Acme Cameras. Please specify cycle and type of camera.

Y9183 BOWLDS LAYOUT AND LETTERING GUIDE for technical animation and lettering features beveled ruling with raised edge, which prevents ink spread. Variable from perpendicular to 45 degrees in either direction. Has positive easily set lock. Moves with peg bar. Increments on peg bar can be read with guide in place. May be used with graphic arts instruments for any requirement involving slanting or vertical lines. Blue anodized finish.

X6396 KENSOL 5A LIGHT-WEIGHT HOT PRESS will letter large-size cards or cells up to 11 inches wide in any desired length. Handles one line of large type or two lines of smaller type. Multi-line lettering and titles larger than 6 inches wide can be made by shifting art material left and right or up and down using adjustable back gauge for accurate registration. Type is locked in a self-centering 1" x 6" pallet. A 12" x 12" thermostatically-controlled plate accessory pre-heats several lines of type. Heat is held within 10 degrees of setting and prevents overheating of type. Operates on 110 volt AC current.

X6397 KENSOL 12A MEDIUM-WEIGHT HOT PRESS is heavier than the model 5A described above. Letter a complete 6" x 9" multi-line area in one operation. Stamping head swivels up to 90 degrees to permit easier manipulation on "crawl" art work and angular effects. Type is locked in a 1½" x 9" self-centering or a

6" x 9" chase. A 12" x 12" thermostatically controlled hot plate is supplied for keeping the chase up to stamping temperature during type changes. Handles art work up to 18 inches wide. Operates on 110 volt AC current.

X6398 KENSOL 52A HEAVY-DUTY HOT PRESS has heavy-duty cast iron frame which applies approximately 50% more pressure than Model 12A. Stamping head does not swivel. Type is locked in a $1\frac{1}{2}$ " x 9" chase. Equipped with preheating hot plate. Lettering area capacity is 9" x 12". Heating system includes three 600 watt heaters controlled by a Robertshaw thermostat to hold heat within 10 degrees of setting to prevent over-heating of type. Operates on 220 volt AC current.

MARKING PENS & PENCILS

Y3678 CADO FLO-MASTER POCKET SIZE PEN is a precision made, aluminum, felt-tipped instrument with automatic valve controlled flow for broad or narrow line marking. Five nibs of various shapes are easily interchanged. N10 (pointed), N11 (chisel), N12 (narrow "T"), N13 (square) and N1 (fine line tip, needs FMA adapter). Please specify nib desired.

Y3679 CADO FLOW-MASTER KING SIZE PEN is similar to above except greater ink capacity and larger nibs. Valve clearance is larger providing faster and more generous ink flow. This size is suggested for Flo-Master semi-opaque ink. Uses three nibs of various shapes: N810 (blunt), N812 (broad "T") and N813 (square, for semi-opaque ink). Please specify nib desired.

Y3680 CADO TRANSPARENT INKS are clear, instant drying, waterproof inks compounded with analine dyes and fine oils. Permanent on porous surfaces — won't rub off. Available in eight colors: Black, Red, Green, Blue, Yellow, Orange, Brown, and Purple (may be blended for desired shade). Available in 2 oz., 4 oz., 8 oz., 16 oz. and 32 oz. cans. Please specify color and quantity.

Y3681 CADO SEMI-OPAQUE INKS are pigmented, fast-drying, weather resisting and more durable than Transparent Inks. Best results are obtained by utilizing Flo-Master King Size Pen with a soft nib, N813 (Pocket Size Pen N213). Ten colors are available: Black, Red, Green, Blue, Yellow, Orange, Brown, Purple, Silver and White may be used for blending various shades. Available in 2 oz., 4 oz., 8 oz. and 16 oz. cans. Please specify color and quantity.

Y3682 CADO FLOW-MASTER CLEANSER is a high quality solvent and thinner for Flo-Master Inks. Will remove ink from most non-porous surfaces and fabrics. Ideal for cleaning Flo-Master pens. Available in 4 oz., 8 oz. and 16 oz. cans. Please specify quantity.

U7156 BLAISDELL CHINA-MARKING PENCIL is a skilfully prepared wax crayon contains many fine rare waxes. Marks slick surfaces; permits rough usage. Resists water and weather. Clean marking, fine texture. Permanent. All trace of color can be removed with a damp cloth. Paper wrapping grips lead securely; string feature permits speedy, economical sharpening. Available in a wide variety of colors.

U7157 SCRIPTO CHINA-MARKING PENCIL features famous Scripto propel, repel, expel mechanism; no need to sharpen or peel. For marking on glass, metal, rubber, cellophane and other very smooth surfaces. With opaque plastic barrel in black, red, blue or green; color of lead to match color of pencil barrel.

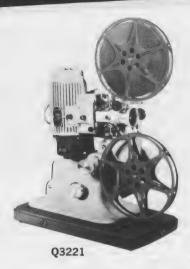
U7158 SCRIPTO CHINA-MARKING PENCIL RE-FILLS, pack of 4 leads, black, red, blue, green, yellow, white, orange or brown (please specify).



MOTION PICTURE EQUIPMENT

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16mm projectors



Q3221 16MM BELL & HOWELL DIPLOMAT is a precision projector which features all-gear drive (no belts). 400 ft. film capacity. 2 inch coated Super Proval f/1.6 lens. 750 watt lamp; forced air cooling. Fast automatic rewind. Reverse and still projection. Operates either AC on DC with flip of switch. Recessed rollers; optically polished film handling parts. Safe-lock sprockets and straight-in straight-down straight-out shuttle action eliminates film scratching and minimizes wear. Self-lubrication. With carrying case.



Q3222 16MM BELL & HOWELL STATESMAN similar to Q3221 but with belt drive. 2 inch Excessalite f/1.6 lens.

Q3223 16MM BELL & HOWELL STATESMAN similar to Q3222 but with 2 inch Super Proval f/1,6 lens.

Q3224 16MM BELL & HOWELL FILMOSOUND #302 SERIES OPTICAL-MAGNETIC RECORDING PROJECTORS record and playback directly on 16mm single or double perforated sound striped film. Can also be used as standard optical sound projectors. 2 inch Super Proval f/1.6 lens. 2000 ft. film capacity. Sound and silent switch for recording and play back of magnetic track at 16 or 24 f.p.s. Reverse switch for immediate playback at any point during recording. Optical-magnetic track selector for switching from optical to magnetic track or vice versa, while projector is running. Interlocking controls prevent accidental erasure. Still picture projection. Supplied with crystal microphone, 15 watt amplifier and 50 ft. roll of sound stripe practice film. 105-130 volt, 50-60 cycle AC operation.



Q3225 16MM BELL & HOWELL SINGLE CASE FILMOSOUND #302K housed in compact case; 6 inch speaker; amplifier with dual outlet for auxiliary speaker.

Q3226 16MM BELL & HOWELL ACADEMY FILMOSOUND #302D1 has 12 inch speaker housed in separate case, dual outlet for auxiliary speaker.

Q4226 16MM BELL & HOWELL ACADEMY FILMOSOUND #302D2 for single perforated film

Q3227 16MM BELL & HOWELL AUDITORIUM FILMOSOUND #302D3 has 12 inch 25 watt speaker housed in separate case; speaker booster amplifier makes multiple speaker installations possible.

Q3228 16MM BELL & HOWELL FILMOSOUND 385 SERIES SOUND PROJECTORS feature high quality optical sound system, still picture projection, reverse switch, metered lubrication feeds right amount of oil to all moving parts. Motor bearings permanently lubricated. 2000 ft. film capacity. 2 inch Super Proval f/1.6 lens. Forced air cooling system protects film from damage. All-gear drive mechanism. Constant governor controlled operating speed. 15 watt amplifier, 60 cycle AC operation.

Q3229 16MM BELL & HOWELL SINGLE CASE FILMOSOUND #385K housed in compact case with 7 inch speaker; amplifier with dual outlet for auxiliary speaker.

Q3230 16MM BELL & HOWELL ACADEMY FILMOSOUND #385-B1 with 12 inch speaker housed in separate case; dual outlet for auxiliary speaker.

Q3231 16MM BELL & HOWELL AUDITORIUM FILMOSOUND #385-B3 with 12 inch speaker housed in separate case, 25 watt amplifier; speaker booster amplifier makes possible multiple speaker installation.

Q3220 16MM BELL & HOWELL CIVILIAN JAN SOUND PROJECTOR features long-life jewelled parts and precision film transport. 2000 ft. film capacity. Reverse and fast rewind. Self-lock sprocket guards; precision focus. Specially designated coated 2 inch f/1.6 lens. 1000 watt 25 hour lamp can be adjusted for filament position and optical system for maximum light distribution on screen. Powerful 10 watt amplifier. Microphone-phonograph input permits use as public address system. Built-in 5 inch PM speaker. Progressive tone control. Compact carrying case.



Q4098 16MM BELL & HOWELL FILMOSOUND 535 PROJECTOR is the greatest advance in motion picture projectors since sound was added to film. New Compact Unitized construction makes the "535" one of the lightest optical sound projectors available. Die cast magnesium castings provide structural strength and light ness. Weighs only 29 pounds. Tiny, sturdy, reliable diodes used in the Filmosound 535 replace vacuum tubes and add lightness and rugged reliability. Miniaturized amplifier on printed circuit board accounts for additional compact design and light weight and produces sound with clarity that is unsurpassed. The "535" has more picture brilliance than ever before attained. Lens, lamp and optical system completely redesigned for sharp, brilliant screen image. A proximity lamp with built-in reflector immediately behind the filment reflects virtually all the light through the film into the 2 inch f/1.6 coated lens. Uses 1000 watt lamp (750 or 1200 watt optional). 2000 ft. film capacity. All operating controls are grouped together on the new Finger Span Control Panel. Two dials operate projector and sound amplifier. Fast rewind without switching reels. Gear driven tilting device assures no slipping and adjusts projector from vertical to 10 degrees. Simple ejection lever removes projection lamp and sound exciter lamp. Factory sealed lubrication requires no oiling. All gears and other moving parts are self-lubricating or sealed units. Direct positive gear drive. Steel gears are coated with nylon. Acoustically mounted oval speaker is built into projector. Speaker faces the screen and produces superior sound and high tonal quality.

Q4099 FILMOSOUND 535 PROJECTOR ACCES-SORY SPEAKER has 8 inch woofer and a 4 inch tweeter in one case. Balanced speaker system designed specifically for the Filmosound.

Aerial Cameras

INVENTORY . . . most complete stock anywhere of aerial cameras, accessories and parts.

MANUFACTURER of parts and special components for all aerial cameras and associated equipment.

SERVICE . . . world's largest organization for repair, modification and maintenance of aerial cameras and plotting equipment.

PHOTO INSTRUMENTATION

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16mm projectors



Q3204 16MM KODAK PAGEANT SOUND PROJECTOR MODEL AV-255S will project silent or sound films. 25 watt amplifier with heavy-duty speaker in lift-off baffle cover. Fingertip forward and reverse rotary switch for pre-showing preparation and educational repetition. Spring load ed sprockets eliminate snubber rollers between supply and take-up reels and sprockets. Convenient loop former. Permanently prelubricated. Superlative sound quality provided by bass-treble and fidelity controls. Separate inputs for microphone and phonograph. Amplifier and projector mechanism are designed to accept auxiliary attachments which will permit the playback of magnetic sound. Kodak 2 inch f/1.6 Ektanon lens; 750 watt 115 volt lamp (accepts 1200 volt lamp); 1600 ft. Reel. 105-125 volt AC, 50 or 60 cycle, operation.

Q3205 16MM KODASCOPE PAGEANT SOUND PROJECTOR, MAGNETIC-OPTICAL, MODEL MK4 provides optical sound and permits recording and playback from magnetic tracks (either full or quarter width) at silent or sound speeds. Separate volume controls permit recording of background music as well as voice commentary. Rerecording automatically erases previous recording. Projector lubricated for life. Kodak 2 inch f/1.6 Projection Ektanon; 750 watt, 115 volt lamp; 1600 ft. reel; Kodak Microphone Model PA-4. 105-125 volt AC, 60-cycle, operation Audio output, 10 watts; speaker, 8 inch in lift-off baffle; 750 watt lamp (accepts 1000 watt lamp); film capacity, 2000 ft. 16mm. Microphone and



Q3206 16MM KODASCOPE PAGEANT SOUND PROJECTOR, MAGNETIC-OPTICAL, MODEL AV-104-M features optical sound reproduction and also records and plays back sound from (full, half and quarter-widths) magnetic tracks at either silent or sound speeds. Separate volume controls permit the recording of background music as well as voice commentary and facilitate the proper change in volume level during periods of commentary. Recording automatically erases

the previous recording. Super-40 shutter at sound speed provides 40% more illumination than the Model MK-4 projector. Projector lubricated for life. Kodak 2 inch f/1.6 Projection Ektanon; 750 watt 115 volt lamp; 1600 ft. reel; Kodak Microphone Model PA-4. 105-125 volt AC, 60 cycle, operation. Audio output, 10 watts; speaker, 8 inch in lift-off baffle cover. Illumination, 750 watts (accepts 1000-watt lamp). Film capacity, 2000 ft. High impedance microphone and phone inputs.

Q3207 16MM KODASCOPE PAGEANT SOUND PROJECTOR, MAGNETIC-OPTICAL MODEL AV-104-MF1 similar but for 105-125 volt AC, 50 cycle, operation.

Q3208 16MM KODASCOPE PAGEANT SOUND PROJECTOR, MAGNETIC-OPTICAL MODEL AV-104MF2 Similar but for 210-250 volt AC, 50 cycle, operation.

ask the cameraman who has rented from gordon enterprises

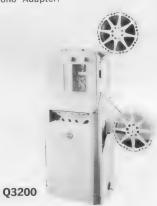


Q3209 16MM KODAK PAGEANT SOUND PROJECTOR MODEL 8K5 is designed for projection of sound or silent films. Built-in fully baffled 9 inch oval speaker in lift-off cover with 25 ft. cord. Permanently attached folding reel arms. Permanently prelubricated. Kodak 2 inch f/1.6 Projection Ektanon lens; 750 watt, 115 volt lamp; 1600 ft. Reel; 105-125 volt AC, 60 cycle, operation. Audio output, 8 watts. Accepts 1000 watt lamp. Film capacity, 2000 ft. 16mm. Input receptacle for microphone.



Q3210 16MM KODAK PAGEANT SOUND PROJECTOR MODEL AV-085 features fingertip switch for on and off control of amplifier, motor and lamp. Folding reel arms. Spring loaded lower sprocket eliminates snubber roller between sprocket and take-up reel. Convenient loop former. Permanently lubricated. Kodak's Super-40 Shutter gives bright sharp movies at silent

speed, shifting automatically to give brilliant image at sound speed with a special lock for "standard" illumination when super brilliance is not required. Printed circuit amplifier. Output full 8 watts. High and low frequency tone control. Oval 11" x 6" speaker in lift-off baffle cover, with 40 ft. cord. "Forward" projection only. Kodak 2 inch f/1.6 Projection Ektanon lens; 750 watt, 115 volt lamp; 1600 ft. reel. 105-125 volt AC, 60 cycle, operation. (Accepts 1000 watt lamps.) Input receptacle for Microphone or Phono Adapter.



Q3200 16MM EASTMAN PROJECTOR MODEL 25B meets professional standards of 35mm motion picture equipment. Separate motor drives for movement, main mechanism, blower and reel arms eliminate shock forces which are often associated with conventional drives. 1000 watt (600 screen lumens) tungsten illumination. Accessory lenses include five f/1.5 Kodak Projection Ektar lenses in a graduated series of focal lengths. Accessory Altec-Lansing divided network reproducing systems are available. Pre-amplifier delivers output signals from both optical and magnetic sound systems, separately or mixed. Altec-Lansing power amplifier delivers 30 watt audio output with less than 2% maximum total harmonic distortion.

NOTE: Rebuilt projectors, sound or silent, optical and magnetic, are always available at special prices. Write us what you desire and we will send you our used projector list of models currently available.

Q3201 16MM EASTMAN PROJECTOR MODEL 25B with Model 605A Altec-Lansing Speaker and Model 612A Cabinet.

Q3202 16MM EASTMAN PROJECTOR MODEL 25B with Model A-7 Altec-Lansing "Voice of the Theatre" Speaker System.

Q3203 16MM EASTMAN ARC PROJECTOR MOD-EL 25B is similar to model listed above, but is equipped with 46 ampere, 80 minute trim arc illumination for longer and brighter throws (3000 screen lumens). Arc lamp rectifier requires 220 volt AC, 60 cycle, single phase Arc lamp, 44-46 amperes at 30-31 volts DC.

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MOTION PICTURE EQUIPMENT

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16mm projectors

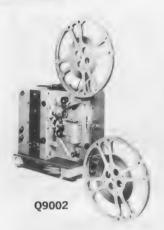


Q9001

Q9001 16MM RCA PORTO-ARC PROJECTOR has been designed to meet the demand for powerful, portable 16mm arc equipment of truly professional quality. Outfit disassembles into five easy to carry cases, and may be set up or taken down in less than five minutes. Projection unit features powerful, vastly oversize motor. Sintered metal gears with oilite bushings. Up and down claw travel adjustment. Swing away film gate, protects film, easy to clean. Large diameter sprockets, 16-tooth, double size. Lens is standard 2½ inch, f/1.8 coated. Sound and silent speed operation. Centrifugally operated fire shutter protects film when mechanism is stopped. Heat filter, quickly removable for cleaning. 2000 ft. reel. Arc operates at thirty amperes. Carbons burn 56 minutes. 1600 lumens of light. Automatic carbon feed. Includes main power line circuit breaker which protects power circuit from accidental overload while striking arc. Automatic switch on lamphouse door, which shuts off power when door is open, eliminates possibility of shock. Carbon feed motor does not operate until arc is struck. Ammeter indicates arc current. Amplifier output adaptable to all commonly used auditorium speakers. 25 watts output at less than 5 percent distortion. Separate volume controls provided for picture sound, microphone, and record player inputs. Total weight approximately 199 pounds.

Please write, wire or phone for Gordon Enterprises new Rental Rate Book.

Q9002 16MM RCA "LIFE TESTED" MAGNETIC SOUND PROJECTOR is a deluxe instrument designed to record on magnetically striped film with excellent results at low cost. Easy to operate controls permit quick recording, play-back, erasing and re-recording. In addition to recording magnetic track, equipment reproduces both optical and magnetic track. Projects sharp clear, professional quality pictures. All of operating facilities are housed in a single attractively styled case. A superb RCA speaker is provided in a separate, vinyl covered case. Sound frequency response of 100 to 7000 cycles obtainable from magnetic track is superior to quality results from optical prints. Erase head and record-reproduce head are on common assembly mounted inside the sound drum. Mixing controls are integrated in the machine. Monitor jack is provided which permits use of headphones for monitoring and also provides outlet for additional loudspeaker or monitor speaker. Projector uses standard medium prefocused lamps up to 1000 watts. Equipped with 2 inch f/1.6 coated, field-flattener lens, 2000 ft. reels. May be operated at 16 and 24 frames per second. Operates on 105-125 volts AC, 60 cycle power. (Adaption available for synchronous drive.)







Q9003 16MM RCA "LIFE TESTED" MAGNETIC SOUND PROJECTOR single case model, same as above but having the speaker, microphone and accessories in lid of speaker.

Q9004 16MM RCA "LIFE TESTED" SENIOR PROJECTOR is a two case unit consisting of a projector and a speaker mounted in its own acoustically designed carrying case. Powerful 15 watt amplifier delivers room filling sound to audiences of up to 1000 persons. Equipped with field-flattener type 2 inch f/1.6 coated lens. Can accommodate a 750, 1000, or 1200 watt lamp without danger of overheating film. Will project 2000 feet of sound or silent film. Operates from standard 110 volt AC outlet.

NOTE: The RCA 400 Senior Projector, with addition of a MI-38131 Magnetic Reproduce Kit, will reproduce 16mm film with magnetic sound track, as well as optical recordings.

Q9005 16MM RCA "LIFE TESTED" JUNIOR PROJECTOR consists of a projector and speaker built into a single handsome surf green carrying case. Detachable cover houses speaker. For audiences of up to 400 persons. 7 watt amplifier matched to speaker which reproduces music and voice superbly. 1200 watt prefocused projection lamp may be used without danger of overheating film. Field-flattener type projection lens is 2 inch f/1.6 coated. Projector's capacity is 2000 feet of 16mm sound or silent film. Plugs into standard 110 volt AC outlet.

NOTE: The RCA Junior Projector, with addition of an M1-35131 and 35132 Magnetic Reproduce Kit, will reproduce 16mm film with magnetic sound track, as well as optical recordings.

NOTE: 16mm RCA Jr. and Sr. Projectors are available in Reverse models that permit reverse projection without reduction of light output.

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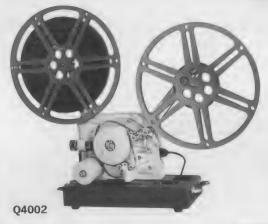
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SPECIAL PROJECTORS





16MM HARWALD M-M SUPREME OPTI-CAL SOUND PROJECTOR is small and compact, yet equals heavier projectors in performance. Features include: 400 watt, bi-plane filament projection lamp which is also used for sound excitation, no separate exciter lamp needed. 2 inch f/1.6 coated projection lens is standard equipment; other focal length lenses available. Oilite bearings require no lubrication. speed, governor controlled universal motor. 2000 ft. reel arm capacity; constant tension take-up arm. Safety latch holds film firmly on sprocket teeth. Chassis mounted on live rubber mount-Ingenious safety switch protects film against incorrect threading, torn sprocket holes and other emergencies. Requires no special threading. 6 inch permanent magnet, dynamic speaker (auxiliary 10 inch speaker available). Push-pull high fidelity amplifier; approximately 4 watt output. Complete in one case, $8'' \times 11^{1}/2'' \times 15^{1}/2''$, weighs only 28 pounds complete. 105 to 120 volts, 25 to 60 cycle AC or DC. Transformers available for higher voltage.

Q4001

Q4001 16MM HARWALD MOVIE-MATE AUTO-MATIC REPEATER SOUND PROJECTOR requires no rewinding. It is the smallest, lightest weight, most compact and easiest to use 16mm sound projector available. Less than one cubic foot in size and weighs just 23 pounds. Nothing assemble or thread. Case contains everything necessary for a sales film presentation: screen, cord, speaker, projector and film. 400 ft. film capacity, 400 watt bi-plane filament projection lamp, 2 inch f/1.6 coated projection lens, 4 inch permanent magnet speaker delivers 5 watts, screen built in to case cover (larger screens may be used). Operates on 105-125 volt AC-DC 25 to 60 cycle power.

04004 16MM HARWALD M-M SUPREME PRO-JECTOR with optical sound for 6 volt DC opera-

04005 HARWALD SOUND PROJECTOR 10 INCH EXTENSION SPEAKER

SERVICE _

Gordon Enterprises is at your service whether you are a free-lance cameraman filming newsreels or a major Hollywood studio. Our personnel, facilities and extensive experience are at your disposal for consultation in equipping, designing, modifying, repairing or rebuilding camera, optical, sound, processing, printing, lighting or instrumentation equipment. Regardless of the scope of your operation do not hesitate to consult us on your motion picture or photo instrumentation problems. We stand ready to serve you anywhere in the world whether you wish to purchase new or used equipment, rent cameras or accessories, want a modification made on present equipment or simply desire consultation on your photographic problems.

S3469 16MM HARWALD CINEMATIC CONTIN-UOUS PROJECTOR is housed in a cabinet which is 66 inches high, 18 inches deep and 28 inches wide. Projects a 16" x 24" picture. Has 800 ft. capacity film magazine. Equipped with 750 watt lamp. Excellent picture and sound quality. Ideal for showrooms, classrooms, advertising displays, conventions, trade shows, etc.

> 16MM TECHNICAL SERVICE INC. (T.S.I.) PROJECTORS are built in 3 Series and 7 models. Custom modifications are available on special order

- 1. TECLITE Standard Screen Projection (straight)
- 2. DUOLITE Standard Screen Projection, plus TV type screen (rear view) projection.
- 3. MOVIEMATIC Repeater Projection -Projectors incorporating film magazine for repetitive showings without rewinding.

Various models in each series are supplied to fit specific needs. The model symbols (letters and numeral) indicate what the projector does and the power of the amplifier. The code system is: S - standard or "straight" projection; T - TV type screen, rear projection; M — magazine projection, no rewind; 20 — twenty watt amplifier; 18 — eighteen watt amplifier; 3 — three watt amplifier.

\$3250 TECLITE S-18 Single case, standard projector with sound-silent speeds, forward (no reverse) only. 2000' reel arms, 18 watt amplifier, 6" speaker permanently mounted. Uses up to 1200 watt projection lamp. Supplied with 2" f/ 1.6 coated lens, 750 watt projection lamp, 1600 takeup reel. AC only. Weight 36 lbs.

S3251 TECLITE S-20 Single case, standard projector with sound-silent speeds, forward and reverse. 2000' reel arms, 20 watt amplifier and 8" detachable speaker with 40' extension cable. Uses up to 1200 watt projection lamp. Supplied with 2" f/1.6 coated lens, 750 watt projection lamp, 1600' takeup reel. AC only. Weight 36 lbs.

S3252 DUOLITE ST-3 Single case, standard projector and TV type screen. Sound speed only, no reverse. 2000' reel arms, 3 watt amplifier, 6" attached oval speaker. Uses up to 400 watt projection lamp. Supplied with 2" f/1.6 coated lens (standard projection), $\frac{4}{5}$ " f/2 coated lens with "swing-away" mirror for rear view projection to built-in foldaway 14" TV sized screen (8½" x $10\frac{1}{2}$ "), 300 watt projection lamp, 1600' takeup reel. AC or DC. Weight $25\frac{1}{2}$ lbs.



S3253 DUOLITE ST-18 Single case, standard projector and TV type screen. Sound-silent speeds, forward and reverse. 18 watt amplifier, speeds, forward and reverse. To wait amplified 2000' reel arms, 7" attached speaker. Uses up to 1200 watt projection lamp. Supplied with 2" f/1.6 coated lens (standard projection), 5% " f/2 coated lens with "swing-away" mirror for rearview projection to built-in, foldaway 17" TV sized screen (10" x 14"). 750 watt projection lamp, 1600' takeup reel. AC only. Weight 40 lbs

S3254 MOVIEMATIC STM-3 Single case, standard projector with TV type screen and repeater film magazine. Sound speed only, no reverse. 2000' reel arms, 3 watt amplifier, 6" attached oval speaker. Uses up to 400 watt projection lamp. Supplied with 2" f/1.6 coated lens (standard projection), $\frac{5}{6}$ " f/2 coated lens with "swing-away" mirror for rear-view projection to built-in, foldaway 14" TV sized screen ($\frac{81}{2}$ " x $\frac{101}{2}$ "). 300 watt projection lamp, 800' film magazine (power driven) with film protection cutoff switch installed. Film loading drum and case cover. AC or DC. Weight $27\frac{1}{2}$ lbs.

please remember

. . . while this is the most complete catalog of motion picture and photo instrumentation equipment ever published, it cannot possibly include every photographic item in the Gordon Enterprises' inventory — the world's largest and most complete. If the particular product you seek new or used - is not listed in these pages, please ask our Sales Service Department.

every product listed in these pages is available for rental.



MOTION PICTURE EQUIPMENT

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special projectors



S3255 MOVIEMATIC STM-18 Single case, standard projector with TV type screen and repeater film magazine. Sound and silent speeds, forward (no reverse) only, 2000' reel arms, 18 watt amplifier with detachable 6" speaker. Uses up to 1200 watt projection lamp. Supplied with 2" f/1.6 coated lens (standard projection). \(\frac{5}{2}\)ket (2 coated lens with "swing-away" mirror for rear-view projection to built-in, foldaway 17" TV sized screen (10" x 14"). 750 watt lamp. 1000' film magazine (power driven) with film protection cutoff switch installed. Film loading drum and case cover. AC only. Weight 42 lbs.

S3256 MOVIEMATIC TM-3 Special model for sales demonstration use. Single case, TV type screen projection only. Sound speed, no reverse, 3 watt amplifier with 6" attached oval speaker. Uses up to 400 watt projection lamp. Supplied with 5'8'' f/2 lens with fixed mirror for rear-view projection to built-in, foldaway 14" TV sized screen (8½" x 10½"). 300 watt projection lamp, 800' film magazine (power driven) with film protection cutoff switch installed. Film loading drum and case cover. AC or DC. Weight $23\frac{1}{2}$ lbs.

Q3240 16MM CINEKAD SYNCHRONOUS MOTOR DRIVE FOR SOUND PROJECTORS is especially designed to drive all Bell & Howell, Ampro, Eastman Kodak, R.C.A. and Victor projectors at synchronous speed. Heavy-duty synchronous motor will drive projector with up to 2000 ft. reels; mounted to special cast aluminum plate on rubber shock mounts to insure isolation from vibration and noiseless operation. Instantly attached and detached. Complete with base plate, Cannon plug for cable and electric power switch and set of reduction gears.

Q7681 16MM KODAK ANALYST SILENT FILM PROJECTOR is designed for instrumentation, sports, motion studies and other type analysis where motion picture films must be carefully scrutinized. Equipped with built-in Daylight Projection Viewer for desk-top screening under room light. May also be used for straight projection. Variable-speed rheostat permits projection throughout a range of 5 to 24 frames per second. Remote control reverse button lets you repeat critical footage instantaneously. Supplied with 2 inch f/1.6 lens, 750 watt lamp, 400 ft. reel, carrying case.

Z1030 16MM FASTAX WF-329A MOTION ANALYSIS PROJECTOR is designed for the study and analysis of movement of subjects filmed by Fastax 8mm (16mm half frame) high speed motion picture cameras. The films may be projected at the slow motion speed of 2 frames per second without flicker in addition to the normal projection speed of 16 frames per second. A still picture of indefinite duration may also be shown with a small amount of screen illumination loss. The framing rate is controlled by a single lever which may be moved in either direction or from any one setting to another while the projector is running. Projector incorporates a special feature which allows the film to be advanced frame by frame. The single frame changing device will shift only one frame at each press of either the fixed or remote button irrespective of the period of pressure applied. Refocusing is not necessary when shifting to or from the hold frame position. Built-in frame counter enables a single frame or sequence to be identified and correlated with time. Universal 110 volt AC-DC electrically governed motor. Film gate and pressure plate polished stainless steel. Precision ground sprockets. 1½ inch f/1.8 coated projection lens. Spring steel shutter is flickerless at 2 and 16 frames per second. High intensity 250 watt projection lamp. Direct optical system with coated condenser elements. Forced draft cooling lamp cannot be switched on unless fan is working. Heat-absorbing glass reduces screen illumination on still picture by only 12%. 800 feet film capacity.

Z1031 16MM FASTAX WF-329B MOTION ANAL-YSIS PROJECTOR is similar to above but projects standard 16mm full frame.

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TOR features built-in picture changeover. Takes arc lamps up to 70 ampere capacity. Built-in hum-free DC exciter supply. Built-in sound head with both sound and picture components on one compact mechanism plate. Centralized lubrication; self-locking idlers. 2000 ft. feed and take-up magazines, mounting base, arc lamp bracket, aperture plates with ratio of 1:1.33; 1:1.85 and 1:2. Optional equipment available includes projection lenses, arc lamp and rectifier. R3301 20 watt amplifier for above with polarized power cable assembly, inputs for one or two projectors, for microphones and for record player; built-in monitor speaker.

35 MM PROJECTOR

R3300 35MM DEVRY CHALLENGER PROJEC-

R3302 20 watt amplifier similar to above, less monitor speaker

R3303 20-40 watt two channel amplifier for above, with power cable assembly, bridging cable, inputs for one or two projectors, for microphone and record player, with built-in speaker.

R3304 Coaxial PM speaker for above

CUSTOM DESIGN

Gordon Enterprises photographic consultants are available to assist you in custom designing new photographic equipment or modifying stock equipment to fit a particular data recording task. Tell us your requirements, what you want the photographic equipment to accomplish and the space, weight, G-load and other factors that apply and we will provide the answer. Whether the photographic recording can be done with a stock item or a specially designed or modified piece of equipment, you can be sure that Gordon Enterprises personnel can perform the job.

R3299 35MM DEVRY XD SOUND PROJECTOR features a 2000 ft. capacity unit capable of projection up to 200 ft. distance. 1000 watt 115 volt AC prefocus projection lamp combined with high quality optical system. Removable upper magazine. Built-in sound head with both sound and picture components on one mechanism plate. Centralized lubrication system; self-locking rollers. 30 watt external amplifier. External speaker with 100 ft. cable.

R3305 35MM STOP-MOTION PROJECTOR provides great flexiblity for study of 35mm motion picture records. Forward or reverse variable speed from 8 to 24 f.p.s. Single frame operation; frame counter. Also manual operation, forward and reverse. Heat absorbing glass prevents film damage during single-fram operation. 2000 ft. capacity reel arms. 110 volt AC, 60 cycle, 15 amps. Accepts 1000 watt projection lamp.

NOTE: Other 35MM silent and sound projectors including Holmes, Simplex and Acme are available.

R3306 35MM HOLMES PORTABLE SOUND-ON-FILM PROJECTOR features high grade optical system and large reflector which permits projection of 35mm films on 9 ft. x 12 ft. screen. 1000 watt 115 volt AC prefocus base mazda lamps; projection lamps of lower or higher wattages can be used without any change of lamphouse. 2000 ft. capacity. 25 watt amplifier. Input receptacle for one or two machines; volume control; changeover switch; continuously variable tone control built-in. Output impedance for 8 or 16 ohm speaker. Operates on 115 volt AC, 50-60 cycle current.

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S5631 16MM/35MM FEDERAL PORTABLE MICROFILM READER AND PROJECTOR MODEL 701 may be used as vertical projector or enlarger, with accessory projection stand; or as horizontal projector. Head may be rotated 360 degrees for horizontal or vertical format. Equipped with 65mm f/6.3 coated projection lens, handles 100 ft. rolls of 16mm or 35mm perforated or unperforated film in either double or single frame format, pre-focused 150 watt projection lamp, heat absorbing filter, removable film carrier with film rollers and easily removable optical glass flats, may be tilted up to 15 degrees, operates on 100 to 125 volts AC or DC, 10 feet of U. L. approved cord, with switch. Supplied complete with 16mm and 35mm spools, 16mm and 35mm take-up reels, 16mm mask and 4 spacers.

S5632 16MM/35MM FEDERAL PORTABLE MICROFILM READER AND PROJECTOR MODEL 205 is similar to above but has in addition: 500 watt projection lamp and is blower-cooled, with lamp mounted in separate chimney for cool operation.

S3241 16 / 35 / 70MM RICHARDSON MODEL P-300 PORTABLE PROJECTOR is a single projector with provisions for 16mm, 35mm and 70mm film. By use of interchangeable film transports, and a selection of lenses, a complete system is provided for projecting film in regular cine-motion, constant or variable speeds, single frame advance and either forward or reverse motion. Special feature allows 90° rotation of the projected image for the purpose of orientation.



S3500 70MM HULCHER MODEL 501 PROJECTOR has been developed for studying 70mm negative or color positive perforated roll film, frame by frame. Projector can be operated single frame or at sequence rates from 5 to 20 f.p.s. either forward or backward. Film may be advanced or reversed frame by frame automatically with a remote trigger switch. Has film capacity of 100 ft., using standard No. 10 spools. Greater capacities available on special order. 1000 watt 115 volt projection lamp is cooled by centrifugal blower. 5 inch f/3.5 projection lens is supplied (other lenses available). Projector is also available with a built-in pulse timing system variable from 2 to 10 seconds per frame. The Hulcher projector utilizes the same film advance mechanism employed in the Hulcher 70 sequence cameras. It is therefore, possible to use either ASA 1 or ASA 2 type perforations, simply by changing the film sprockets.

Lighting as YOU want it!

Qualified Lighting Engineers analyze your needs and make practical suggestions in equipment — for purchase or rental. See pages 58 through 76.

prices and price lists

As you use this book, you will see that it is much more than a compilation. Many pages of charts and other valuable material can be of practical help to you for years to come. In view of the long life of these references, and of the continued developments and changes in motion picture equipment particularly in photo instrumentation—it would not be realistic to include prices of equipment in this catalog. Your inquiries to the Gordon Sales Service Department will bring you current quotations promptly. At the same time, you will be informed of any superseding models of the products you seek.

BACKGROUND SLIDE PROJECTORS

S8902 T.S.C. DUAL REAR SCREEN STILL PROJECTOR takes both 4" x 5" glass slides and Polaroid transparencies. Consists of two projectors operating in tandem. Alternate slides may be wiped or dissolved. Aspheric lens system provides high degree of even light coverage and produces equivalent of 5000 watts of light on the screen with only 2100 watts. Equipped with dual drum changers, quadruple blower cooling system, two matched 6½ inch f/3 coated projection lenses, dual 5 element condenser system, may be remotely controlled. Excellent for television or motion picture production. Projects a 9' x 12' image from 18 feet distance.

S8301 BODDE 4" X 5" BACKGROUND SLIDE PROJECTOR Model P-3ACC can be used for large size rear projection of scenes required to "back up" foreground action or set used in motion picture or television production. Unit features triple condensing system, precision mounted top-quality coated optics, variable auto transformers for adjusting, fading or dissolving picture, built-in voltage meters, 200 C.F.M. blowers cool slide and projection lamp optical system, adjustable holder for neutral density filters for hot-spot elimination and many other professional features. Will accommodate 2000 or 3000 watt lamps. 6½ to 12 inch projection lenses available.

S8302 BODDE 4" X 5" BACKGROUND SLIDE PROJECTOR Model P-5AC is similar to above but will accommodate 5000 or 7000 watt lamps. NOTE: BODDE PROJECTORS are available in Dual Models that allow dissolving from one picture to another. Special Stripfilm attachment also available for continuous projection of "moving" scene. Please write for detailed information on the various Bodde Projectors and Special Effects equipment. State size of screen and space available when making inquiries.

PROJECTION SCREENS

GORDON ENTERPRISES offers projection screens manufactured by DA-LITE, KNOX, RADIANT, RAVEN and others in all styles and sizes. Various projection surfaces are available for different purposes and projection situations. When inquiring please state size, style and surface you desire or tell us projection bulb wattage, projection distance and other pertinent data that will aid our PROJECTION SPECIALISTS in recommending the proper screen for you.

STEWART TRANS-LUX REAR PROJECTION SCREENS are completely seamless, bound and grommeted or unbound material. These are available in standard types and sizes of flexible screens, designed for tension-mounting with elastic to a separate frame or (in small sizes) capable of being affixed directly into frame. Write for complete data stating size and type of projection equipment and use.

R8050 STEWART LUXCHROME

R8051 STEWART LUXCHROME 50 (gray toned)

R8052 STEWART S-50-R

R8053 STEWART HI-TRANS

R8054 STEWART PROCESS (white toned)

R8055 STEWART TV-BLUE

R8056 STEWART BLACK

R8057 STEWART AT-SERIES SCREEN FRAMES are constructed of aluminum tubing, painted in black lacquer, and furnished with inverted "T" stands so as to be self-supporting and to permit height adjustment of bottom of picture up to 3½ feet from floor in most sizes. Frames can be custom made to fit any aspect ratio desired.

for the best and latest in processing equipment

... see pages 78 through 80

BODDE TRANSLUCENT BACKGROUND PROJECTION SCREENS are custom-cast to individual order in any seamless size up to forty-two by ninety-two feet. A tape border is cast into the screen edge during manufacture for the support of grommets that allow mounting in a rigid frame. Provision for large roller installation may also be made in manufacture.

S9501 BODDE TRANSLUCENT TELEVISION BACKGROUND SCREEN Model 0-1 allows extremely wide-angle camera pick-up.

S9502 BODDE TRANSLUCENT TELEVISION BACKGROUND SCREEN Models S-1, S-2, and S-3 are made in varying contrast, light blue colored for maximum contrast and wide-angle camera pick-up.

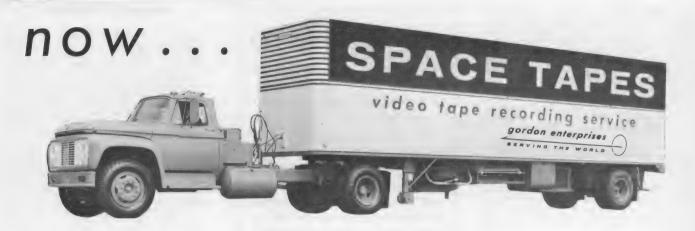
S9503 BODDE TRANSLUCENT MOTION PICTURE BACKGROUND SCREEN Model 0-1 is medium-grained and allows wide-angle pick-up.

S9504 BODDE TRANSLUCENT MOTION PICTURE BACKGROUND SCREEN Models N-1 and N-2 are neutral density (black dyestuff incorporated) contrast screens for use with background arc projectors only.



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ence" recording and production, scenes may be played back immediately. You may select full or partial services in accordance with your particular needs, as you want it, where you want it, when you want it!

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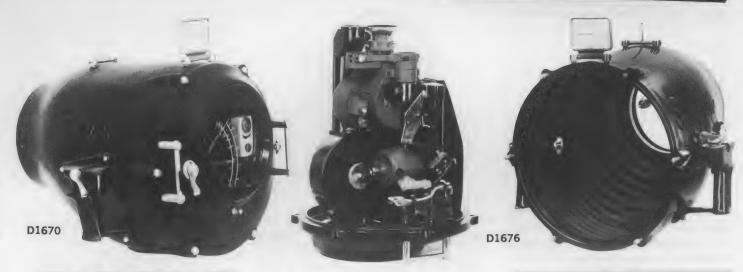
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underwater equipment



16MM and 35MM SAMPSON-HALL UNDER-WATER MOTION PICTURE AND TV CAMERA HOUSINGS are constructed of die cast aluminum alloy, heat treated to withstand extremely high pressures and anodized to prevent corrosion. Made in two parts: units may be separated for loading film by removing 6 lugs. Housing is perfectly balanced and may be set for negative or positive buoyancy by the use of weights attached to bottom. Pressurization unnecessary at depths of less than 150 feet. Housing may be pressurized, at depths of more than 150 feet, by valve in rear section. Diaphragm and focusing calibrations visible on rear viewing port. Large rear glass port permits cameraman to place standard round face mask flat against housing. Front glass port optically coated. All control seals are run on precision chrome surfaces. Finger tip camera controls.

D1670 16MM UNDERWATER CAMERA HOUS-ING.

D1671 16MM UNDERWATER CAMERA HOUS-ING with 70DR Bell & Howell Camera, footage counter, built-in light meter, large coated optical viewfinder and Elgeet 12mm f/1.2 lens.

D1672 Case.

D1673 Sampson-Hall built-in Exposure Meter.

D1674 Large visible Footage Counter.

D1675 Sampson-Hall large, coated Optical Viewfinder.

Aerial Cameras

INVENTORY . . . most complete stock anywhere of aerial cameras, accessories and parts.

MANUFACTURER of parts and special components for all aerial cameras and associated equipment.

SERVICE . . . world's largest organization for repair, modification and maintenance of aerial cameras and plotting equipment. D1676 35MM UNDERWATER CAMERA HOUSING.

D1677 35MM UNDERWATER CAMERA HOUSING with Bell & Howell Eyemo 71KM Camera, with Angenieux 18.5mm f/2.2 wide angle lens, built-in light meter, footage counter, Sampson-Hall large coated optical viewfinder, 400 ft. Sampson-Hall displacement type magazine, 8 LR-5 Yardney Silvercell Battery pack and Battery Case and sports finder, all installed, calibrated ready to use.

D1678 Case.

D1679 Eyemo 71K Camera with motor mounts and open back.

D1680 12 volt DC Eyemo Motor.

D1681 Large visible Veeder Footage Counter.

D1682 Sampson-Hall 400 ft. displacement type Magazine.

D1683 Sampson-Hall large Optical Viewfinder.

D1684 Sports Finder.

D1685 Motor Angular Mount with plug socket and switch.

D1686 Film Track Roller Assembly.

D1687 Lens Pulley (2 required).

D1688 Lens Belt (2 required).

D1690 Yardney LR-5 Battery Pack ($\frac{1}{2}$ hr. steady use).

D1692 Battery Case.

D1693 Built-in Converted Light Meter.

D1694 Silvercell Battery Charger, 12 volt.

D1695 TV CAMERA HOUSING (specify television camera).

D1696 TV Camera Housing Coaxial Cable Coupler.

D1697 Cable Covering (specify number of feet).

D1698 Special Hose Coupling Wrench.

D1699 Special Lug Wrench.

D1700 Camera Mount Bracket.

D1701 Extension Nose Port.

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Whether you are producing a documentary film in Asia, or equipping a motion picture studio in Europe, please remember that Gordon Enterprises is ready and able to serve your needs in every way. Chances are that the cameras, sound, processing or editing accessories are in stock here. Should you require special adaptations, Gordon technical consultants and optical and sound engineers are just a phone call or cable away from you . . . wherever you are. They are at your service in solving your production problems. Please feel free to call for assistance in selecting the most practical equipment. The telephone number is 766-3725. The direct distance dialing code is 213.



D9769 16MM FAIRCHILD HS-100 MOTION ANALYSIS CAMERA is enclosed in a Sampson-Hall Underwater Housing for analysis of events occurring in water. Rechargeable battery pack is enclosed within housing. 100 ft. capacity daylight loading spools. Speed range from 10-2750 f.p.s. available (Please refer to pages 105 and 106 for specifications.)

NOTE: Other types of instrumentation cameras may be enclosed in underwater housing upon request.



MOTION PICTURE EQUIPMENT

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underwater equipment

D2150 16MM FENJOHN UNDERWATER MOTION PICTURE CAMERA is constructed of cast aluminum machined to tolerance. Aperture, focus, filter and speed settings can be made under water. Focus calibration, f/stop and filter in use can be seen through viewfinder while filming. Right thumb operates starting trigger. Housing is equipped with 16mm Bell & Howell 50 ft. magazine camera, 13mm f/1.5 Elgeet wide-angle lens, large brilliant viewfinder, electric motor (operates on flashlight batteries) which will expose approximately 1000 ft. of film. Camera has speeds of 12, 16, 24, 32, 48 and 64 f.p.s. Four filters may be mounted and changed while filming. Housing, complete with camera, weighs 21 pounds in air and only 3¾ pounds under water.

Camera Adaptations

Gordon Enterprises Engineering Department, Precision Machine Shops and Assembly Shops are thoroughly qualified to make all types of custom adaptations, so that standard motion picture and instrumentation cameras may be modified for special filming applications. Lens Turrets, Lenses, Magazines, Torque Take-up Motors, Timing Lights, Tracking Finders, Heaters, etc. may be adapted to extend capabilities of cameras. Engineering proposals will be gladly submitted to meet your requirements.

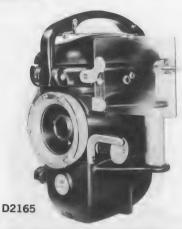
D2175 16MM MAKO UNDERWATER CAMERA HOUSING is designed for the Arriflex 16 camera with 400 ft. external magazines. Constructed of cast aluminum with all openings O'ring sealed. All shafts are stainless or brass, O'ring sealed. Front of housing contains camera mounted on tray that slides into rear of housing and is held in by pressure and five stainless clevis bolts. All gear drives are mounted on camera tray and slide into alignment with controls on rear casting. Standard gear set-up is for 10.5mm Cinegon lens. Extra gear set-up for virtually any lens can be provided. All controls available on camera can be controlled from outside of housing except turning of lens turret. Test pressure valve is provided. Footage counter and tachometer may be read through windows. Internal light. Housing designed and tested to 150 feet unpressurized Standard 8 volt DC Arriflex motor is operated by nickel cadmium batteries (available separately). Weighs 22 pounds dry, positive 2 pounds in salt water.

D2176 35MM MAKO UNDERWATER CAMERA HOUSING is similar to above but accommodates Arriflex 35. Weighs 42 pounds dry, positive 4 pounds in salt water.

D2180 MAKO WESTON MASTER III EXPOSURE METER HOUSING is made of $\frac{1}{2}$ 6 inch plastic, O'ring sealed and tested to 100 ft. depth. Meter may be used with either high or low scale.

D2185 MAKO UNDERWATER LIGHT is of brass chrome construction. Special 1000 watt 110 volt AC underwater lamp in 12 inch reflector. Includes 100 feet of cable.

NOTE: MAKO HOUSINGS are available for TV and many other motion picture cameras. Write stating camera make and model.



16MM BOLEX UNDERWATER CAMERA HOUSING is designed to remain steady when immersed. Two side handles allow diver to grip housing firmly and direct it accurately. Bolex camera is inserted in housing in a few seconds and held in position by a single lever — no special tools are needed. Cover is closed tight by means of locking handle. Camera may be quickly removed. Two viewfinders are provided: full-view iconometer viewfinder, with built-in parallax correction down to 4 ft, consists of a sight and a tinted transparent plate showing the field covered, and a sports viewfinder for rapid work, consisting simply of a front and rear sight mounted on the locking handle. Shooting port is made of high-quality glass and fitted with a neutral filter which is completely immersed during a dive. This filter prevents reflections and softens the blue-green water tones, increasing picture contrast. Wide-angle lenses (either 10mm or 16mm) are employed so no outer focusing control is required. Lens f/stop may be adjusted and camera motor wound by simple outside controls. This housing has been tested to a depth of over 300 ft. and found to be free from warping and absolutely watertight. Weight out of water is 22 pounds. Housing is supplied with all accessories required. Carrying case included.

D6506 16/35MM ECLAIR AQUAFLEX is an underwater version of the Camerette with a modified elongated magazine that reduces the height of the camera and allows a slender sil-

houette design for underwater housing. Has all basic features of the Eclair 16/35mm camera. (See Listings A1355 to A1380 in Camera Section.) Equipped with external controls for operating diaphragm, focusing and motor drive. Two 400 ft. magazines. Special eyepiece for external reflex viewing. 6-8 volt non-spillable battery. Photoelectric exposure meter. Blimp has compressed air bottle and a standard Cousteau spiro-technique apparatus for automatic regulation of air pressure within housing. The following Kinoptik lenses are furnished: 25mm f/2, 35mm f/2, 50mm f/2 and 75mm f/2. Detachable wings and vertical rudder aid greatly in transporting and stabilizing the camera under water. Camera can be easily guided with one hand while operator is swimming. Complete unit weighs 107 pounds in air and can be adjusted to either positive, negative or neutral buoyancy under water.



D6505 35MM COSTEAU BATHYGRAF UNDERWATER CAMERA is automatically pressurized at any depth to 330 feet to maintain 1 pound buoyancy. Compressed air from built in cylinder with automatic demand level insures against water penetration and makes camera "weight-less" under water, allowing the unit to rise to the surface when released. Chromium-plated brass housing is mounted on a shaft equipped with two pistol grips which allow operator to aim camera. Pistol grips rotate to control aperture and focus, provided on dial readings at cameraman's face port. Finder sight automatically sets parallax when focus is adjusted. Both lens aperture and focus may be changed during scene. Camera is modified LeBlay newsreel camera. 25mm f/2 and 50mm f/1.3 Kinoptik lenses are interchangeable under water. Camera may be equipped with 200 ft. or 400 ft. film magazines. 24 volt DC silver potassium battery from 8 to 80 f.p.s.

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FAIRCHILD MOTION ANALYSIS CAMERAS

FAIRCHILD MOTION ANALYSIS CAMERA (MAC) are high-speed 16mm cameras of the rotating prism type, designed for re-search and engineering. The MAC is used to permanently record from 10 - 8000 f.p.s. for study and analysis of phenomena that occur too fast for the human eye to discern. The MAC is a "trouble-shooter and fault finder" since the action can be photo-graphed at a high frame rate and projected for evaluation and analysis at a much slower for evaluation and analysis at a much slower rate, thereby magnifying space and time. This facet of photo-instrumentation results in saving valuable hours and cost of trouble-shooting, research, repeat testing and uncertainty. Vibration, shock, flow and structural change effects may be detected in numerous areas of science and industry; in mechanical, electro-mechanical, chemical, hydraulic, magnetic, aerophysics, electronic, and physiological problems. Simple and rugged construction of the MAC cameras render them ideal for laboratory or field use. The MAC is built to withstand severe acceleration, shock, vibration and temperature. Two basic types are available: One is the HS-100 Vehicular Model designed especially for high "G" loadings present in aircraft, missile, and sled track photography. The HS-100 will operate up to 50 "G's" in any position. The second basic type consists of the HS-101 and HS-401. These are designed for laboratory and field use where high "G" loadings are not present. Both the HS-101 and HS-401 are available for high speed and oscillographic recording. The main drive, the heart of the camera, consists of a four sided prism geared to a sprocket. The prism is a high index rare earth material, water white, which permits photography completely free of fringing and photography completely free of fringing and eliminates the need for color correction filters. To insure optimum resolution, regardless of camera speed, the film as it is drawn around the sprocket is exposed by the rotating prism traveling in perfect synchronization. Power is applied (except at higher frame rates of the HS-101 and HS-401) on the take-up spool spindle. The film serves as a belt to drive the sprocket that is geared to the rotating prism. For the higher speed ranges of the HS-101 and HS-401 power is applied to both take-up spindle and sprocket shaft. All components are "unitized" to facilitate servicing or interchange. The most significant feature of the MAC is its extreme flexibility. With interchangeable motors and lenses, it can be converted in minutes for completely different applications. Motors are series wound, 28 volts DC, except for higher speed motors which are field wound. The motors are of the high starting torque type, thereby rapidly reaching maximum velocity. Four single motor setups are available and speeds are variable within each motor range according to applied voltage. (See speed and motor chart). Timing lights are provided to place "pips" on the film edge so an accurate time base can be determined when data is evaluated and analyzed. An end-of-run film switch is provided to automatically shut off camera power when film supply is exhausted or threading is incorrect. Detachable open sight viewfinder which can be adjusted for parallax is provided. All lenses used on the MAC are of the positive locking bayonet mount type. (See lens list). In applications where immediate appraisal of an event is required, 100 feet of black and white film may be processed and ready for projection in less than 20 minutes by using the Fairchild "Mini-Rapid 16" Processor. (See I-8088).

PHOTO INSTRUMENTATION

16MM	Rotary	Prism	Can	neras	105-	109
16MM	Intermi	ttent	Cam	eras	109-	110
16MM	Pulse (Camer	as		110-	111
Camera	Acces	sories			110-	111
35MM	Rotary	Prism	Car	neras		108
35MM	Intermi	ttent	Cam	eras	112-	113
35MM	Pulse	Camer	as		114-	115
70MM	Camera	as			116-	117
16MM	Oscillo	scope	Cam	eras		118
35MM	Oscillo	scope	Cam	ieras	118-	119
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Readout	t Equip	ment			121-	122
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ROTATING PRISM TYPE HIGH SPEED CAMERAS



Z5020 16MM FAIRCHILD MOTION ANALYSIS CAMERA VEHICULAR MODEL HS-100 is designed for airborne or sled track applications. Built for operations of 50 "G's", it can be used in any position. 100 ft. capacity daylight loading spools. Provided with right angle drive to minimize width and a single motor of your selection. Speed range from 10-2750 f.p.s. depending upon motor. (See speed and motor chart). Provided with three mounting holes for 3/6-16 screws and tripod hole for 1/6-20 screw. Dimensions 11%" long x 4%" high x 4%" wide. Weight: 11 pounds.



Z5021 16MM FAIRCHILD MOTION ANALYSIS CAMERA INDUSTRIAL MODEL HS-101 is designed for laboratory or field use and is capable of being hand held. 100 ft. capacity daylight loading spools. Single motor of your selection is supplied with camera. Speed range from 10 — 8000 f.p.s. depending upon motor. (See speed and motor chart). Provided with three mounting holes for $\frac{3}{8}$ — 16 screws and tripod hole for $\frac{1}{4}$ — 20 screw. Dimensions 8" long x $\frac{8}{8}$ " wide x $\frac{7}{2}$ " high. Weight: 10 pounds.



Z5022 16MM FAIRCHILD MOTION ANALYSIS CAMERA MODEL HS-401 has a daylight load, 400 ft. film capacity and an exclusive start-stop feature using a magnetic particle brake, enabling operator to start or stop camera at any speed. A brake test button and a potentiometer are incorporated with an indicating meter to correctly set brake adjustment. Single motor of your selection is supplied with camera. Speed range from 10 — 8000 f.p.s. depending upon motor. (See speed and motor chart). Provided with three mounting holes for $\frac{3}{2}$ — 16 screws. Dimensions 16 13/16" long x 12 15/16" high x

9 1/16" wide. Weight: 22 pounds.

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For alphabetical index of the world's largest inventory in the motion picture and photo instrumentation fields, please turn to pages 125-128.



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FAIRCHILD ACCESSORIES

CAMERA MOTORS are series wound, 28 volt DC, except for highest speed motors which are field wound. Motors reach maximum velocity rapidly because of high starting torque. Four single motor set-ups are available. All motors can be easily interchanged in a few minutes. Cameras may be powered from any 28 volt DC source, rectified AC or 30 volt battery. Speeds are variable within each motor range according to applied voltage. Speed range of motor or motor kit is indicated by color finish.

Z5025 Low Speed Motor Model HS511 will operate at 10 to 60 f.p.s. on HS100 and HS101. 10 to 80 f.p.s. on HS401.

Z5026 Low Speed Motor Model HS501 will operate at 55 to 165 f.p.s. on HS100. 40 to 190 f.p.s. on HS101. 60 to 660 f.p.s. on HS401.

Z5027 Medium Speed Motor Model HS502 will operate 250 to 2000 f.p.s. on HS100. 200 to 2000 f.p.s. on HS101. 450 to 2500 f.p.s. on HS401.

Z5028 High Speed Motor Model HS503 will operate 840 to 2700 f.p.s. on HS100. 750 to 2900 f.p.s. on HS101. 450 to 2500 f.p.s. on HS401.

Z5029 Very High Speed Motor Kit Model HS504-B1 consists of a pair of motors and associated components for operation of HS401 camera at 2100 to 8000 f.p.s.

Z5030 Very High Speed Motor Kit Model HS504-C1 consists of a pair of motors and associated components for operation of HS101 camera at 3000 to 8000 f.p.s.

Z5035 1/2 inch Lens Extension Tube

Z5036 1 inch Lens Extension Tube

Z5037 2 inch Lens Extension Tube

Z5038 4 inch Lens Extension Tube

Z5039 Extension Tube Adapter

Z5040 Extension Tube Set



Z5051 Boresight Viewfinder, Straight, Model HS1301 is available for door mounting. Approximately 5X magnification.

Z5052 Boresight Viewfinder, 90° Elbow, Model HS1302 is available for door mounting. Approximately 7X magnification.

Z5053 120mm Fiducial Marker Lens Model HS1351 is a special version in which a fiducial marker projection system, providing four reference marks on each frame, is integral with the lens. The projector operates on 28 volt DC.

Z5054 Neutral Density Filter Model HS1401 (10% transmission, not for 25mm, 35mm or wide angle lenses)

Z5055 Neutral Density Filter Model HS1402 (1% transmission, not for 25mm, 35mm or wide angle lenses)

AIRCHILD

MAC MOTOR AND SPEED CHART

MOTOR NO. COLOR			HS 100 PICT/SEC			101 /SEC	HS 401 PICT/SEC		
		Volts	25 ft.	50 ft.	25 ft.	50 ft.	100 ft.	200 ft	
		9	10		10		24	32	
HS511	Purple	27					85	110	
		40		60		60	135	175	
		60							
		9	55	70	40	60	60	75	
HS501	Blue	27	100	125	110	140	160	210	
H2201	Diue	40	140	165	150	190	600	660	
		60							
		9	250	300	180	200	450	. 500	
	Green	27	560	680	800	950	1260	1560	
HS502		40	1370	1750	1400	1800	1590	2010	
11050Z Green		60	1750	2150	1800	2150			
		9	840	900	750	850	920	920	
LICEOS	Valland	27	1900	2300	2150	2500	3040	3040	
HS503	Yellow	40	2200	2750	2500	2900			
		60							
HS504-C1	Dod	9			1250	1750			
Con-	Red	27			3000	4200			
version	(2 motors)	40			3850	5350			
Version	1110(015)	60			5000	7000			
HS504- B1	Red	9					2100	2500	
	(2	27					4200	4800	
Con-	motors)	40					4700	6000	
version	motors)	60					6400	8000	

Z5056 Neutral Density Filter Model HS1403 (0.1% transmission, not for 25mm, 35mm or wide angle lenses)

Z5057 Clear Filter Model HS1501 (not for 25mm, 35mm or wide angle lenses)

Z5058 Infrared Filter Model HS1551 (not for 25mm, 35mm or wide angle lenses)

Z5059 Heavy Duty Tripod, with Geared Head, Model HS2511

Z5060 Light Stand Set Model HS3001 consists of two light stands, two cross bars, four sockets and cables (see Lamp Lists for 300 watt and 750 watt high speed bulbs and flood-flash bulb)

M1860 Exposure Meter Model HS3201 (see Meter Section for detailed description)

Z5065 Series Parallel Switch Model HS3301

Z5066 Event and Camera Synchronizer Model HS4001 (for HS100 and HS101 Cameras only) are used when synchronization of camera operation and the event being studied is required. Manual synchronization is possible in many cases; but automatic control is much easier and surer. Camera and event synchronizing equipment is provided which will select the following operational sequences: (1) Camera starts; after a timed period the event starts. (2) Event starts; after a timed period the camera starts.

a timed period the event stops. The unit operates on 110 volt AC or from a self contained rechargeable battery. AC timers are provided for use wherever an AC source is available. DC timers are provided for portable use. Two or more synchronizers may be interconnected for programming a number of cameras and events.



Z5067 Event and Camera Synchronizer Model HS4001A (for HS100, HS101 or HS401 Cameras)

Z5068 Slave Synchronizer Model HS4401 (for HS100, HS101 or HS401 Cameras)

NOTE: Fairchild Mounted Lenses are available in a variety of focal lengths from 5mm (120 degree angle of coverage) to 152mm. See Lens List. Lens Kits are also available. They consist of four lenses and extension tubes in a strong, padded case. Please write for additional lens data.

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Z5069 15 Second DC Timer Model HS4002 (for HS4001, HS4001A & HS4401)

Z5070 1 Minute DC Timer Model HS4003 (for HS4001, HS4001A & HS4401)

Z5071 15 Minute DC Timer Model HS4004 (for HS4001, HS4001A & HS4401)

Z5072 15 Second AC Timer Model HS4102 (for HS4001, HS4001A & HS4401)

Z5073 1 Minute AC Timer Model HS4103 (for HS4001, HS4001A & HS4401)

Z5074 15 Minute AC Timer Model HS4104 (for HS4001, HS4001A & HS4401)

Z5075 6 Ft. Cable, with connectors, Model HS-CES, HS4001A to HS4401

Z5076 8 Ft. Cable, with connectors, Model HS-BEC, HS5004A to HS100 or HS101

Z5077 8 Ft. Cable, with connectors, Model HS-REC, HS5101B to HS100 or HS101

Z5078 8 Ft. Cable, with connectors, Model HS-RECH, HS5101B to HS101 Camera with HS504-C1 Kit

Z5079 8 Ft. Cable, with connectors, Model HS-REC-401, HS5101B to HS401 Camera

Z5080 Rechargeable Battery Pack Model HS5004B in carrying case with shoulder strap and case to camera cable. Built-in charger with charging cable. Taps at $4\frac{1}{2}$, 9, $13\frac{1}{2}$, 18, $22\frac{1}{2}$, 27 and 30 volts. Size: $6\frac{1}{2}$ " x $8\frac{3}{4}$ " x $2\frac{1}{2}$ ".

Z5081 Booster Rechargeable Battery Pack Model HS5005 for use with HS5004 to provide taps of 40, 50 and 60 volts.



Z5082

Z5082 Rectifier Model HS5101B is a full wave rectifier for use with Fairchild MACs. Input 115 volts AC, 60 cycle. Output at 9, 18, 27, 40, 50 and 60 volts DC, with separate output for auxiliary 18 volt DC for control of HS401 MAC and HS504 C1 Kit.

25083 Heater Modification Model HS6000, for HS 100 Camera is door mounted, woven type electrical heater, thermostatically controlled to turn on below 65°F, and off above 65° to maintain adequate temperature in film compartment for use of normal base film at low temperatures. Separate external connector for heater on camera door.

Z5084 Heater Modification Model HS6001, for HS 101 Camera is similar to HS6000, above.

Z5085 Carrying Case Model HS8001, for HS101 Camera

Z5086 Carrying Case Model HS8101, for HS100

Z5087 Carrying Case Model HS8401, for HS401 Camera

Z5088 400 ft. Daylight Loading Spool

Z5089 Timing Light Generator Model HS10500 is a light weight battery or line operated timing light generator with sufficient power to drive an NE51 neon lamp. The time pip is .3 milliseconds in length. Pulsing rates may be selected at 10, 100 and 1000 per second.



Z5090 Timing light Generator model HS-10600 is similar to above but a miniature transistorized unit

Z5091 Fairchild motion analysis camera instruction manual

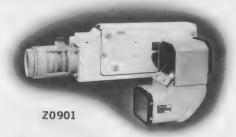
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Z0143 16MM EASTMAN HIGH SPEED CAMERA has 16mm full frame, speeds from 1000 to 3200 fp.s. Built-in 115 volt AC-DC motor with rheostat control. Specially hardened gears; high-speed shafts with sealed precision bearings; nylon belts. Permanent lubrication provides trouble-free operation. Available with built-in camera timing lights and event synchronizer. Focusing accomplished through magnifying eyepiece. For lenses see Lens List.

Z7015 16MM BECKMAN & WHITLEY MODEL 333 MAGNIFAX HIGH SPEED CAMERA is a rotating prism type camera designed to operate from 1,000 f.p.s. to 3,200 f.p.s. Rheostat controls framing speeds of 115 volt AC-DC motor. Built-in event-synchronizing switch to coordinate subject and camera action electrically. Built-in timing light. Light-tight door attached to camera body by single knurled knob. Built-in boresighting and focusing finder. See lens list.



20901 16MM PHOTO-SONICS 1J 115 VOLT AC INDUSTRIAL CAMERA features unique combination of rotary prism and disc shutter. May be mounted with its side, base or top as a mounting surface and in any orientation relative to the action. Shutter cuts off degraded portion of image transmitted through prism and may be adjusted to openings of 72°, 36°, 18°, or 9°. Opening of 9° provides individual frame exposures of 1/40,000th second at 1000 f.p.s., resulting in superior motion stopping capability. Speeds from 14 to 1000 f.p.s. 100, 200, 400 and 1200 ft. capacity film magazines. Operates on standard 115 volt AC, 60 cycle motor. Five sets of motor drive gear changes for speeds of 200 400, 600, 800 and 1000 f.p.s. (Auxiliary gear box required for slower frame rates.) Camera has runout switch and two timing lights, built-in heater for operation to —20°F. Wide variety of lenses are available in 1J mount. See Lens List. Two connectors provided for camera and timing lights.

Z0902 Auxiliary Gear Box for slower frame rates as low as 14 f.p.s.

Z0903 Combination 10X and 20X, straight.

Z0904 Combination 10X and 20X right angle.

Z0905 Combination 10X and 20X, straight and right angle, with one eye piece.

Z0906 100 ft. Magazine for daylight loading spools.

Z0907 200 ft. Magazine, darkroom loading.

Z0908 400 ft. Magazine, darkroom loading.

Z0909 1200 ft. Magazine, darkroom loading.

Z0913 Tracking Finder.

Z0910 Erect Image Viewfinder with masks for 50mm, 70mm and 150mm lenses plus wide angle reducing lens for 15mm lens.

Z0911 Model 661A Fotorelay Lens is a straightthrough lens relay system employed for most basic applications.

Z0912 Model 661B Fotorelay lens is a special 90° periscope employed when camera is used in cramped spaces.

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WOLLENSAK FASTAX HIGH-SPEED MOTION PICTURE CAMERAS

FASTAX HIGH-SPEED MOTION PICTURE CAMERAS can be operated by most anyone with a general knowledge of photography. They are not complex instruments and will produce excellent results with a little training and experience. Fastax cameras differ from ordinary motion picture cameras in that the film is pulled past the aperture in a continuous motion. Instead of a shutter exposing each individual frame during a stationary cycle, the Fastax exposes frames continuously through a rotating prism trav-eling at the same speed as the film. By this method, speeds up to 18,000 frames per second are possible. Fastax cameras are available in 8mm, 16mm and 35mm, with speeds from 150 to 18,000 frames per second. Various models are available for straight high-speed motion pictures, oscillographic recording and combination motion picture oscillographic work. The 28 models of Fastax cameras all incorporate an integral viewfinder for critical focusing and viewing through the camera aperture, double timing lights, automatic cut-off switch and two motors; one for driving the film and one for film take-up. Both motors are powered by 115 volt AC-DC, 60 cycle current. All models are equipped with Fastax lens mount. See Lens List for various focal length lenses available and also for lenses that may be custom mounted.

Z1000 8MM FASTAX WF1 camera will expose from 300 to 16,000 frames per second on 16mm film with 8mm perforations. Three frame sizes are available: 8mm single width or 8mm double width, or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 100 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1001 8MM FASTAX WF2 CAMERA will expose from 700 to 18,000 frames per second on 16mm film with 8mm perforations. Three frame sizes are available: 8mm single width or 8mm double width, or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1021 16MM FASTAX WF2S CAMERA exposes 700 to 16,800 frames per second on 16mm film with 8mm perforations. Three frame sizes available: 8mm single width, 8mm double width or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1003 16MM FASTAX WF4 CAMERA will expose 350 to 9000 frames per second on 16mm film. Two frame sizes available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 400 ft. daylight loading spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1004 16MM FASTAX WF3T CAMERA will expose 150 to 6000 frames per second on 16mm film. Two frame sizes available: 16mm full- frame or with interchangeable slit aperture approximately ½ frame height with full width. Equipped with 2 sided high index glass rotating prism. Uses 100 ft. daylight loading spools. 2 inch f/2 Fastax Raptar lens in focusing mount.



Z1002 16MM FASTAX WF3 CAMERA will expose 150 to 8000 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slip aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 100 ft. daylight loading spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1005 16MM FASTAX WF4T CAMERA will expose from 350 to 6000 frames per second on 16mm film. Two frame sizes available: 16mm full frame or with interchangeable slit aperture approximately $\frac{1}{3}$ full frame height with full width. Equipped with 2 sided high index glass rotating prism. Uses 400 ft. daylight loading spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1006 16MM FASTAX WF4S CAMERA will expose from 350 to 8400 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 400 ft. daylight loading spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1007 16MM FASTAX WF4ST CAMERA will expose from 350 to 6000 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 2 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z3161 16MM FASTAX WF 30 CAMERA exposes 500 to 3,000 frames per second. Full 16mm frame only. Equipped with a 1200 ft. capacity, darkroom loaded, "T" core, magazine. Has "startstop" capability. Thru-the-lens viewing and focusing. Timing markers, electrical inter-locks, ready lights, speed indicators, footage counter, 115 volt AC, 60 cycle power input. Uses standard Fastax lenses. Simplified maintenance. May also be supplied in an RFI (Radio Frequency Interference) protected oscillographic version for high-speed oscilloscopic recording.

Z1013 8MM FASTAX WF15 CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 1300 to 16,000 frames per second (16 ft. per second to 200 ft. per second), on 16mm film with 8mm perforations. Three frame sizes available: 8mm single width, or 8mm double width, or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools. Two lenses furnished: One a 2 inch f/2 Fastax Raptar lens in focusing mount, is mounted on the front of the camera to record the picture image; the other, a 2 inch f/2 Fastax Raptar lens in focusing mount, mounted on the camera door to record the oscillographic trace simultaneously with the picture image.

Z1011 16MM FASTAX WF14 CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 650 to 8000 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools. Two lenses furnished: one, a 2 inch f/2 Fastax Raptar lens in focusing mount is mounted on the front of the camera to record the picture image; the other, a 2 inch f/2 Fastax Raptar lens in focusing mount, mounted on side of camera door to record an oscillographic trace simultaneously with the picture image.

Z1014 16MM FASTAX WF14S CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 350 to 8400 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools.

Z1015 16MM FASTAX WF14ST CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 350 to 6000 frames per second on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. 2 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools.

Z1016 16MM FASTAX WF15S CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 1300 to 16,000 frames persecond (16 ft. per second to 200 ft. per second) on 16mm film with 8mm perforations. Three frame sizes available: 8mm single width, 8mm double width, or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 400 ft. daylight loading film spools.

HERE IS AN ORGANIZATION OF OVER 100 QUALIFIED SPECIALISTS, located in the world center of motion picture, photo instrumentation, aircraft, electronic, missile and space industries.

GORDON CRAFTSMEN understand every facet of motion picture equipment — design, development, performance. Plant facilities are complete in every detail. Experienced sales and rental engineers expedite your needs. Service technicians are skilled in repair, maintenance and modification of camera equipment made by every leading manufacturer.

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Z1018 16MM FASTAX WF17 CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 150 to 8000 frames per second (5 ft. per second to 200 ft. per second) on 16mm film. Two frame sizes are available: 16mm full frame or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 4 sided high index glass rotating prism. Uses 100 ft. daylight loading film spools.

Z1019 16MM FASTAX WF17T CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 150 to 6000 frames per second (5 ft. per second to 150 ft. per second) on 16mm film. Two frame sizes available: 16mm full frame or with interchangeable slit aperture approximately $\frac{1}{3}$ full frame height with full width. Equipped with 2-sided high index glass rotating prism. Uses 100 ft. daylight loading film spools.

Z1020 16MM FASTAX WF21 CAMERA (Combined Motion Picture and Oscillographic Superimposed) exposes 300 to 16,000 frames per second on 16mm film with 8mm perforations. Three frame sizes available: 8mm single width, 8mm double width, or with interchangeable slit aperture approximately ½ full frame height with full width. Equipped with 8 sided high index glass rotating prism. Uses 100 ft. daylight loading film spools.

FASTAX AUXILIARY OPTICAL EQUIPMENT

Z1040 FASTAX WF-135 MICROSCOPE EYEPIECE, 40 power, for critical focusing through Fastax Camera integral viewfinder. Replace standard 10 power eyepiece.

FASTAX FIDUCIAL MARKING ATTACHMENT is an optical system used between the camera and the taking lens. It records simultaneously the subject and reference marks in the form of cross-hairs on each frame. The image from the objective lens is focused on the plano surface of a collective lens on which the reticle cross-hair pattern is engaged. A 1:1 lens system then relays the image and reticle pattern to the film plane. Special reticle patterns are available upon request. These systems are not recommended for use with Fastax Lenses shorter than 1 inch focal length.

Z1041 FASTAX WF-136 FIDUCIAL MARKING ATTACHMENT for lenses used with all Fastax Cameras except Full Frame 35mm

Z1042 FASTAX WF-209 FIDUCIAL MARKING ATTACHMENT for lenses used with Full Frame 35mm Fastax Cameras

Z1050 FASTAX WF129: 3/8 inch Extension Tube

Z1051 FASTAX WF130: 5/8 inch Extension Tube

Z1052 FASTAX WF131: 1 inch Extension Tube

Z1053 FASTAX WF132: 2 inch Extension Tube

Z1054 FASTAX WF133: 1/8 inch Lens Plate Shim

Z1055 FASTAX WF134: 1/4 inch Lens Plate Shim

FASTAX GOOSE CONTROL UNIT permits the synchronization of the camera with the event to be photographed, regulation of the camera speed, and remote control of camera and/or event. A four-position selector switch controls camera and event startstop cycle so that camera and event can be started together, or camera started before event by any predetermined time interval or, conversely, event started first with camera start followed by any predetermined time interval. Event actuated through a selected open or closed relay. Camera speed controlled by variable AC auto transformer with maximum output of 280 volts. Camera

control circuit also incorporates a 70 millisecond delay timer when operating above 130 volts.

21025 FASTAX GOOSE CONTROL UNIT WF-301 115 volts AC, 60 cycle, 30 amperes, with capacity to withstand 100 amperes momentary shock. Two plug-in timers supplied, one for camera and one for event. For use with 100 foot capacity Fastax Cameras normally supplied with two 5 second timers or with 400 foot cameras, one 5 second and one 30 second timer. 15 second, 30 second, 60 second and 5 minute timers available as accessories. Push button or remote control.

Z1026 FASTAX GOOSE CONTROL UNIT WF-358 is similar to above but is powered by 115/220/240 volts AC, 50 cycle, current.

Better Lighting — Better Photography

WITH THOROUGH UNDERSTANDING

of the vital role of proper lighting in effective motion picture production, Gordon Enterprises Lighting Department offers qualified counsel, service and equipment.

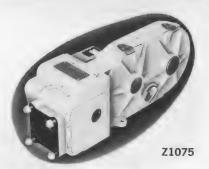
EVERY CATEGORY of photographic lighting and accessories can be supplied by this department. Trained men are available for consultation on special uses of lighting for motion pictures and television.

gordon enterprises provides studio lighting equipment — including Babies, Juniors, Seniors, 10 K's, all types of arc lights — a full complement of converters, heads and accessories — miles of cable, from 4/0 powerfeed cable to light weight extensions.

FOR PROFESSIONAL LIGHTING OF ANY AREA, from small office to an entire sound stage or football field, you can depend on Gordon Enterprises personnel and material — to light the production completely, efficiently and quickly.

Z1008 35MM FASTAX WF5 CAMERA will expose from 100 to 6000 frames per second on 35mm film (standard positive perforation and pitch recommended). 35mm half frame only. Equipped with 4 sided high index glass rotating prism. Uses 100 ft. daylight loading spools. 1% inch f/2 Fastax Raptar lens in focusing mount, with double focusing scale. Scale in color "Red" is used for focusing when using the removable reflex finder behind the lens.

Z1012 35MM FASTAX WF8A FULL FRAME CAMERA will expose from 200 to 2000 frames per second in 8 speeds, without motor exchange, on 35mm film (standard positive perforation and pitch recommended). 35mm full frame only. Equipped with 4 sided high index glass rotating prism with rotating drum. Uses 400 ft. daylight loading film spools in external magazine. 5% inch f/3.5 Fastax Pro-Raptar lens in focusing mount.



Z1075 16MM FASTAIR HIGH SPEED MOTION PICTURE CAMERA is built to withstand acceleration forces up to 100 G's in four principal mounting attitudes. Exposes from 12 to 600 frames per second and reaches top speed almost instantaneously. Maintains uniform speed throughout entire film run. An NE 2a Neon lamp exposes pips or marks on film for reference. Choice of 3 film magazines: 50 ft. daylight loading spool, 100 ft. daylight loading spool and 200 ft. darkroom load on plastic core. Camera can be started and stopped any time during run at speeds under 400 frames per second. Thermostatically controlled heaters in camera body and magazines for operation from 40°F to —65°F. Camera supplied in gray fibre case. Choice of either 12½mm, 17mm or 25mm f/2.3 Pro-Raptar lens (please specify). (See Lens List for other lenses suitable for Fastair)

Z1076 FASTAIR FINDER BORESIGHT STRAIGHT AXIS 10X to 20X

Z1077 FASTAIR FINDER FORESIGHT PERISCOPE 360° VIEWING 10X to 20X

Z1085 FASTAIR TIMING LIGHT MARKER GENERATOR is a miniaturized unit supplying 10 cycle per second pulse to the timing light. A 100 cycle per second unit can also be supplied on special order. These systems require a small power pack supplying 6 volts DC and 180 volts DC. (Power pack not supplied with generator.) When so ordered the Fastair generator is supplied as an integral part of the camera body.

Z1078 FASTAIR 50 FT. MAGAZINE (daylight load)

Z1079 FASTAIR 100 FT. MAGAZINE (daylight

Z1080 FASTAIR 200 FT. MAGAZINE (darkroom load)

Z1081 FASTAIR LOW SPEED MOTOR operates on 9 to 23 volts DC

Z1082 FASTAIR MEDIUM SPEED MOTOR operates on 12 to 27 volts DC

Z1083 FASTAIR HIGH SPEED MOTOR operates on 16 to 28 volts DC

Z1084 FASTAIR CUTOFF SWITCH is available for use with 50 ft. and 100 ft. daylight load magazines. It terminates power when all film has run through camera. Limited to moderate "G load" applications. Installed on new cameras when so ordered.

LARGEST, MOST COMPLETE
LENS CHART EVER COMPILED

OVER 7,000 COMBINATIONS



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INTERMITTENT TYPE HIGH-SPEED CAMERAS



Z3155 16MM BENSON-LEHNER PHOTOGRAPHIC RECORDER MODEL HS-16D2 is rugged, lightweight 16mm camera designed to operate up to 400 f.p.s. while mounted on aircraft, missiles, sleds or any other location where photographic information is required for test data or documentary purposes. Recorder employs an intermittent movement with register pins on both sides of the film to insure precise registration at time of exposure and eliminate danger of film loop loss. Utilizes coaxially mounted daylight loading spools of 200 ft. film capacity. Standard 16mm single frame aperture. Uses standard 16mm "C" mount lenses. (See lens list.) Utilizes a specially-designed universal motor with 4-speed manually operated transmission, capable of operating on 28 volt DC, 115 volt DC, or 115 volt AC, 50-1,000 cycles per second, single phase. Selection of wires on connector and a switch for AC or DC operation for various voltage input. Gear set 1:1 — 400, 200, 100, 50 f.p.s. Gearset 1:3.13 — 128, 64, 32, 16 f.p.s. Gear set 1:14 — 96, 48, 24, 12 f.p.s. Movements are quickly and easily removable and interchangeable between cameras to facilitate maintenance and replacement if necessary. Shutters are easily interchanged. Setting of shutter opening may easily be seen through window. Automatic feed spool brake applies correct feed tension to film to insure extremely reliable start-stop operation at all speeds. Precision twelve-tooth sprockets are employed. Twelve to fourteen sprocket teeth are engaged in each film loop at all times, insuring reliable, high speed start-stop operation, even with dry or brittle film. Heavy duty micro-switch with ball bearing rollers places the film in a positive guided path which excessive "G" loads or vibration cannot affect. Upon completion of run, switch automatically shuts off camera to eliminate excessive operation. Hermetically sealed, magnetically operated switch, which closes momentarily at the midpoint of shutter opening is suitable for correlating camera operation to oscillograph recorders or synchronizing

Z3156 BENSON-LEHNER PHOTOGRAPHIC RE-CORDER MODEL HS-16D4 is similar to above but accepts 400 ft. film capacity and a delay circuit for protection against film breakage at start.

Z3157 STRAIGHT BORESIGHT including crosshairs to optically align recorder, focus the lens and show exact field of view.

Z3158 SWIVEL TYPE BORESIGHT allows a full 360° rotation for viewing from any position.

Z3159 CARRYING CASE



Z7001 16MM GORDENT "200" HIGH SPEED CAMERA is a compact camera designed for photo-instrumentation applications where space is limited. Camera operates at 50, 100, and 200 f.p.s. 150° shutter opening (other openings available on special order). Film capacity is 50 feet using pre-loaded magazine. Accepts standard "C" mount lens. (See lens list). Speed is achieved by incorporating precision bearings and a high torque 28 volt DC governor controlled motor. Automatic end-of-run switch is supplied to prevent excessive camera operation on remote locations. Special lubrication system allows extended operation. (Models are available with timing and correlation marker lights).

Z7003 Gordent MK 80 Magazine with timing light is designed for high speed operation with the GORDENT 200 Camera.



20183 16MM TRAID 200 CAMERAS are available in several versions with numerous optional features such as 100 ft. or 200 ft. capacity, with or without timing system, single or variable speed, standard "C" mount or special lens mount, with or without heat element and thermostat, standard 72° shutter or other opening, boresight, pulsing unit. Camera has successfully withstood approximately 25 G's in guided missile filming. 200 f.p.s. operating speed. Controlled by a shunt-type, governor-controlled motor. Camera can be supplied to fit individual requirements — various shutter openings, frame speeds, motors and magazines, available on special order.

Z0180 16MM TRAID 70 CAMERA may be fired in bursts or constant operation of entire 100 ft. film capacity at 200 f.p.s. Withstands 10 "G's" acceleration in all directions. Will' operate from +20°F to +150°F. Heater element can be installed for extreme cold weather conditions. Features 3 lens turret, "C" mount, 3 finder objective turret, corrected for parallax, 72 degree fixed rotary disc shutter. Camera speeds variable from 32 to 200 f.p.s. based on voltage control of motor. Either 24 volt DC or 115 volt AC high speed motor available.

Z0190 16MM 200 FT. TRAID 620 DISPLACE-MENT MAGAZINE is designed to meet numerous applications requiring compactness due to space limitations. 9" high and 6" deep. Fits standard Bell & Howell magazine mounting plate. Can be used on any Filmo Design 70 or Traid camera. Feed spindle designed with reverse spring action to take up slack when film shot in bursts at high speed.



Z0101 16MM VOUGHT VDR-5T HIGH SPEED DATA RECORDER operates from 24 to 200 f.p.s. Has intermittent film action for high resolution. Accommodates any "C" mount lens. Shutter correlation pulse or film edge timing light. 28 volt DC motor. 100 ft. Daylight loading spools are stacked side by side to reduce envelope size. End of run switch Tested for Hi-G-load.

how

VIDEOTAPE

can work for you

(turn to page 102)



Z0245 16MM 257GE GSAP CAMERA TYPE AN-N6A (gun sight aiming point) is ideal for many photographic instrumentation and data recording applications. Built-in overrun control may be preset to keep camera running automatically after event stops, to record supplementary effects. An indicator image is registered on the film to show portion exposed during overrun period. Control can be adjusted from 1 to 5 seconds in increments of 1 second. Operates on 24 volt DC, (12 volt DC modification available). 35mm lens and a sector-disc shutter provides exposures of 1/45, 1/90, 1/80 and 1/180 second for speeds of 16, 32 and 64 f.p.s. Self-contained daylight loading film magazine holds 50 feet of 16mm film. Footage dial on camera cover indicates amount of unexposed film remaining. All parts are made of corrosion-resistant material and camera will withstand normal vibration and extreme temperatures. Thermostatically controlled heater keeps the interior temperature from dropping below 45° F. After installation, camera alignment can be checked with the use of the Type 10GE boresight kit. Dimensions: 3" x 3½" x 7½". Weight: 3½ pounds with 35mm lens.

Z0246 18 GE "C" Mount Modification to modify AN-N6A camera to accept standard "C" mount lenses.

Z0247 Modification to AN-N6A for 12 volt DC operation.

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Z0202 16MM BELL & HOWELL DESIGN KB-3A GUN CAMERA is a precision-engineered motion picture camera system designed primarily to record the accuracy of aerial gunnery. The compact, rugged KB-3A was developed to meet stringent Air Force and NATO requirements with ease of operation, minimum maintenance, and unerring performance. However, it can also be used or readily adapted, for practically any movie-making situation. Uses 50 ft. 16mm LB-4A magazine (also accepts 100 ft. 6230B magazine). GSAP mount (see Z0251 and Z0252). Camera operates at 16, 32 and 64 f.p.s. Variable rotary disc shutter may be adjusted in 5 positions from 11° to 180°. Motor drive will operate from 24 to 29 volts DC. Equipped with overrun control. Various in-flight camera controls are available. Accepts 90° Erector Assembly (See Z0253). See Lens List for GSAP or "C" mount lenses. Angular and straight line viewing with Gordon Enterprises A-2 boresight accessory kit. (See Z6150.)



Z0206 16MM BELL & HOWELL DESIGN N-9 GUN CAMERA was designed primarily for producing visible records of aerial combat, but is applicable as well to all situations requiring motion picture photography. Detachable magazine permits simple and quick reloading by means of a pre-loaded expendable cartridge. Will operate to —65°F. and withstand high acceleration and vibration. Either GSAP or "C" Mount lenses may be used. Variable shutter may be set at 5 positions from 11° to 180° either manually or with electrically operated remote control. Camera will operate at 16, 32, and 64

f.p.s. 28 volt DC motor. Accepts 90° Erector Assembly (see Z0253). See Lens List for GSAP or "C" Mount lenses. Angular and straight line viewing with Gordon Enterprises A-2 boresight accessory kit. (See Z6150.)

Z0203 Remote Shutter Control.

Z0204 Radio Interference Filter.

21052 16MM FLIGHT RESEARCH MULTIDATA MODEL IIIB CAMERA is designed for pulse or cine operation. Its compact size and light weight make it especially well-suited to airborne operations. Accurate timing of the specially designed clutch provides control of the actual time of exposure, permitting synchronization between the Model IIIB and other instrumentation as well as between cameras. Uses 50 foot standard Eastman magazine. 200 and 800 ft. external magazines available. 16mm type "C" or GSAP lens mounts may be interchanged. See Lens List. Change gears normally supplied for 5, 10, 20 and 40 f.p.s. Model IIIBA has standard speeds of 4, 8, 16, 32, and 64 f.p.s. Change gears for other speeds available. Single exposure at any repetition rate up to 20 per second. Rotary disc shutter with 36° opening normally supplied. Any opening to 135° available.

Provided with: Coding lights, output pulse, fiducial markers, standard GSAP mounting, standard GSAP boresight. Thermostatically controlled heater for low temperature operation. Camera operates during acceleration of 20 "G's" applied in either direction on all three axes. Various drive motors available.

PULSE CAMERAS

20201 16MM BELL & HOWELL DESIGN KD-7 PULSE AND CINE DATA RECORDING CAMERA is operated by electric impulse. One picture taken each time pulse received. Excellent for recording instrument data appearing at unpredicted intervals. Cathode ray tube applications can be synchronized to take pictures only when display appears on the tube. No film wasted. KD-7 incorporates a "cine" mode for filming data that appears continuously, such as readings from aircraft instrument panels. 50 ft. 16mm LB-4A Magazine (also accepts 6230B 100 ft. capacity magazine). Motor drive operates from 24 to 29 volts DC. Single lens GSAP or "C" mount. Variable rotary disc shutter from 11° to 180° opening. Operates at 12 f.p.s. with cine mode and 10 f.p.s. maximum with pulse modes. Built-in heaters permit operation to —65° F. Camera meets applicable military specifications for operation in aircraft.

Z0200 16MM BELL & HOWELL DESIGN 200-P MAGAZINE PULSE CAMERA for instrument data can be operated at a pre-determined time interval between exposures. Motor drive will operate from 24 to 32 volts DC. Picture exposure time can be varied by changing duration of electrical pulse to the solenoid, since shutter remains open for duration of the pulse. Film advances one frame each time solenoid is actuated. Uses "C" mount lenses and positive type viewfinder objectives. AN-1(10GE) Boresight Kit (see Z0255) is available for through-the-lens viewing. 133° fixed rotary disc shutter designed to stop in closed position. Internal heater allows operation to —45°F. Uses modified Eastman or Ansco 50 ft. standard 16mm magazine.

modification

Gordon Craftsmen can adapt your early model equipment to meet today's needs.

B2001 16MM SIEMENS RECORDING CAMERA is specifically designed for automatic and remote photographic recording in the fields of automation, microfilming, microcinematography, time lapse photography, medical and clinical photography, meter and instrumentation recording. Employs specially designed, re-usable, easy-to-load film magazine which holds 40 ft. of film providing 1600 individual exposures. Magazines are sturdily built and incorporate film gate and pressure plate. Camera has built-in projection system which numbers each exposure successively from 1 to 50. continuously recycling. This allows easy identification and makes possible synchronization of any number of cameras. An outlet is provided for illuminating equipment. Accepts lenses in type "C" mount. (See lens list) Shutter has speeds of 1/30, 1/40, 1/50, 1/75 and 1/150. Operates on 24 volt DC. Camera may be custom adapted for other voltages and special applications.

B2002 Siemens Film Magazine

D1936 ZOOMAR-TRUEFLEX AUTOMATIC EXPOSURE CONTROL can be used for phototheodolites, tracking cameras, tracking telescopes, etc. Can be delivered as an integral part of any Zoomar Reflectar Assembly. The transmission is achieved by two counter-rotating optical wedge discs. A beamsplitter, absorbing only 8% of the main light flux, works in conjunction with a computer and a built-in transistor amplifier to achieve the full automatic "Through-the-Lens" Exposure Control.

Brightness Range: 7 stops 1/128 Power Requirement: 25 watts, 110 volt AC Minimum operable focal length lens: 6 inch Maximum operable focal length lens: no limit

CAMERA ACCESSORIES



Z0255 TYPE AN-1(10GE) BORESIGHT KIT manufactured by Gordon Enterprises is designed to test the alignment of M-1 through M-4A and N-1 through AN-N6A 16mm GSAP and data recording cameras. Boresight is shaped to fit into film magazine chamber of camera. 8-inch eyepiece can be rotated through 360° around axis of camera. Cross hairs on the reticle glass indicate the optical center of camera aperture. Interchanging two components, the elbow and the auxiliary sleeve, allows assembly into either a right-angle telescopic unit or a straight-through telescopic unit.

Z6150 GORDON ENTERPRISES BORESIGHT KIT TYPE A-2 is designed to test alignment of Bell & Howell N-9 or KB-3A Camera. Boresight fits in place of magazine and is held in place by locking knob. Cross hair reticle provided for ease of alignment. Consists of right angle adapter and straight eyepiece. Boresight may be focused for each individual eye. Hardwood case.

Z6151 TRAID BORESIGHT TYPE 601K is designed for alignment of the Traid 200, 71 and 75 and Bell and Howell 70 and 71 series cameras (Filmo and Eyemo). Boresight tool adapted into camera door. Ocular rotates 360° with erecting prism. 15X to 40X magnification. Fitted carrying case.



Z0256 ERECTOR HEAD ASSEMBLY TYPE 298GE is designed for right angle photography with the N-9 or KB-3A cameras. 3.76 inch f/3.5 lens and prisms are housed in a rugged aluminum to withstand severe shock and vibration. All optical surfaces are coated.



Z0253 90° ERECTOR ASSEMBLY for the N-9 GSAP Camera is manufactured by Gordon Enterprises under Specification MIL-E-9403. The 90° Erector Assembly facilitates mounting the N-9 GSAP Camera for air-to-air, or air-to-ground photography when space limitations in the aircraft or airborne missile are such that the optical axis of the basic camera lens must be offset from a desired direction to permit installation.



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Assembly is equipped with a special one-piece N-9 Adapter for attaching the Erector Assembly to the N-9 GSAP Camera. Provisions for setting assembly at four fixed positions in 90° increments around the full 360° of the optical axis of camera lens. Adapter is compatible with both original "long" style lens and current "short" bodied lens. Unit provides opening for access to lens diaphragm control from either side of camera. Prism is superior one-piece Porro-Abbe prism made of high-grade optical glass, ground, polished, and mirrored to latest Military Specifications

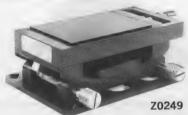


Z0250 TYPE 76 GORDON ENTERPRISES MOUNT when used in conjunction with proper adapters will satisfy all requirements for mounting Type M-1 through M-5, N-1 through N-6, AN-N6A and N-9 gun cameras in wing, missile cavity locations and sight reticule positions for flight test, laboratory work, and permanent installation on tactical aircraft. Provides rapid disconnect of camera without disturbing bore-sighting or harmonization of mount. Release of one locking screw and nut is only function required for quick removal of, or installation of, camera and adapter to mount. May be installed horizontally or vertically. Optical axis of camera lens is between 2" and 31/4" above bottom surface or the mounting plate of the mount, depending upon type of adapter used.

Z0251 TYPE 76 GORDON ENTERPRISES MODEL

B — Vertical Mounting.

Z0252 TYPE 76 GORDON ENTERPRISES MODEL F — Horizontal Mounting.



Z0249 GORDON ENTERPRISES ADJUSTABLE INSTRUMENT AND CAMERA MOUNT TYPE 80GE is designed for flight test instrumentation and other special applications where the camera is too heavy or "G" loads too great for the original smaller mounts. Designed for use with Fastax, Bell & Howell, Eastman, Mitchell and other heavy still and motion picture cameras in a variety of installations at test sites, aboard aircraft and missiles and in laboratories. May be used for either internal or external mounting. Stock dovetail mounting plates are supplied undrilled. Special camera or instrument adapters may be ordered to fit your particular requirements. Maximum swing is 12 degrees either side of longitudinal axis. Maximum tilt is 9 degrees above or below level axis. Constructed of finest materials with structural and weight factors so balanced to provide maximum strength with

Z8747 WINTER ENGINEERING HEAVY DUTY CAMERA MOUNT has a maximum 30° tilt up or down. 5" x 8" dovetail camera mounting plate is easily detachable. Size 7" wide, 10" long, 4" high.

Z3171 BENSON-LEHNER QUICK 'RELEASE MOUNT, QRM-16 is designed for use with Benson-Lehner HS-16B photographic recorder or equipment of similar size and weight. Designed to enable the operator to quickly remove and replace photographic recorders located in cramped surroundings, it facilitates ease of loading, inspection, and maintenance. The photographic recorder may be removed and replaced in mount to an accuracy of ±1 minute of arc. The wedge plate is bolted to existing holes in base of the camera; the dovetail assembly is attached to the air frame or similar supporting structure. The camera can be quickly installed or removed by operation of the release lever. Camera may be mounted facing either direction on the wedge plate so that the direction of removal from the dovetail will suit any given installation. Electrical connector may be incorporated, which will enable the camera to be connected to the power supply at the time of installation. Size: 7" x 33/4" x 3/4". Weight: 2 pounds.



Z9001 RED LAKE LABORATORIES MILLI-MITE is a transistorized, battery operated timing light generator with 10, 100 and 1000 cycles per second. 300 volt impulse, 30 microseconds pulse width. Accuracy: ±1% from -15°F to +155°F. Size: 5" x 6" x 7". Weight: 4 pounds.



Z8745 WINTER ENGINEERING 16MM MIT-CHELL TIMING LIGHT ADAPTER is designed to be placed between Mitchell camera body and magazine. Available with NE 51 timing light.

Z8746 WINTER ENGINEERING 35MM MIT-CHELL TIMING LIGHT ADAPTER is similar to 16mm unit except that 2 lights are provided.

Z6152 TRAID 619A TIMING LIGHT SYSTEM for Bell and Howell 70 cameras is a single NE-2 High Brightness lamp which places a "pip" mark at feed sprocket position. Location adjustable for edge marking or in frame area. Timing Light System mounted in door.

Z6153 TRAID 619B TIMING LIGHT SYSTEM for Bell and Howell 70 cameras similar to above except for two lamps, located at feed sprocket and take-up sprocket.

23175 BENSON-LEHNER PUPPET TIMING SYS-TEM provides photo instrumentation groups with a flexible and expandable method of recording elapsed time in decimal notation directly onto exposed frame of film. Four event lights are also available and can appear on the exposed frame adjacent to the elapsed time indication. There are three main components in the PUP-PET Timing System: (1) Control Unit initiates the timing control signals upon command from a remote start-stop signal. A 6 to 30 volt DC signal is required to activate this circuit. The Control Unit also receives the event light control signals and generates the proper signals to drive a distributor unit. A 6 to 30 volt DC signal is required to activate this circuit. Front panel controls provide for power turn on, reset to zero of all display units, manual turn on and off of timing signals and a visual decimal presentation of elapsed time. (2) Distributor Unit buffers the signals from the Control Unit to the Display Unit which makes it possible to drive any number of Camera Display Units (ten per distributor) at distances of up to 1,000 feet. (3) Display Unit consists of an optical system within the camera that projects the four display tubes on the film. Circuits within the Display Unit drive the Nixie display tubes, event lights and pulse counter. The pulse counter accumulates pulses from the Distributor Unit.

Photogrammetry

Gordon Enterprises has the answers to all your needs in aerial photography and plotting equipment from pocket type stereoscopes to complex stereo plotting equipment.



is an electro-mechanical device which permits remote control of all types of aerial, motion picture and data recording cameras. Most advanced model intervalometer in its classification. Normal operation is unchanged as far as pulsing is concerned. Will transmit a single pulse at any predetermined setting of the interval selection knob, one-half second to 60 seconds in one-half second increments. Allows single frame or cine operation from a remote switch. Will pulse control cameras manually (cine or single frame) without interfering with fixed interval pulsing established by position of interval selector dial. When changing from single frame to cine operation switch travels through "OFF" position thereby eliminating possibility of over-loading external circuits or burning internal contacts. May be adapted to use intervalometer pulse independent of remote switch to operate timing lights. Also possible to operate conventional camera systems with specially modified Gordent 15A Intervalometer singly or in conjunction with each other. Operates on a 27.5 volt DC power supply and provides a remote frame counting light which indicates film motion in camera.

Z7016 BECKMAN & WHITLEY MODEL 335 CAMERA STAND will provide adjustment of the camera platform from 14 inches to 62 inches above floor level. Provided with two standard tripod threads on ½ and ¾ inch thumb screws. Platform may be tilted 90° up or down and locked in any position. Will permit loads up to 40 lbs. in weight. Hand crank for height adjustment.

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INTERMITTENT TYPE HIGH-SPEED CAMERAS



35MM BENSON-LEHNER PHOTO-GRAPHIC RECORDER, MODEL HS-35A is a full frame, 35mm camera, capable of frame rates up to 300 f.p.s. Ideally suited for instrumentation purposes, the camera's extremely smooth, DY-NAMICALLY BALANCED MECHANISM, makes it possible to record images with superior definition. Features 35mm ASA Type Z22.34 — 1956 1000 feet in interchangeable magazines, 30 to 300 f.p.s., 208 volt AC, 60 cycle, three phase, DC exited field, synchronous motor (115 volt AC, 60 cycle, single phase motor available at extra cost). Control box is integral with the camera. Shutter is one of the focal plane rotating disc type and the opening adjustable from 10 degrees type and the opening adjustable from 10 degrees. Shutter correlation pulse is synchronized by the motion of the shutter shaft triggered at apex of shutter opening. Three fiducial marks are provided at the frame edge to define mutually perpendicular axes. Timing light assembly, which incorporates two NE51H neon lamps will record 100 cycle pulses and an elapsed time code on the film where the film is running continuously. Switch is provided on the camera for the purpose of calibrating the timing lights with the apex of the shutter opening. Film buckle and end-of-run switch will automatically shut off the power to the motor if the film should jam or film supply is exhausted. Safety switch is also provided so that camera cannot run unless door is closed. Magazine will hold a 1000 ft. feed spool, which has a specially designed demand brake to maintain proper drag on film regardless of the film speed. Movement is dynamically balanced, intermittent, linkage type with positive pin registration. Registration accuracy of ± 0.001 inch at 300 f.p.s. Boresight tool is supplied for aligning each camera. Camera and all accessories are painted a high gloss white for heat reflection. Camera has been de-signed to meet the rugged environmental conditions encountered in desert and coastal range areas. Dimensions including 1000 foot magazine: 11½" x 23½" x 22½"

Complete contents of Photo Instrumentation Equipment listed on page 105.

Z0181 35MM TRAID 71 CAMERA may be fired in bursts or constant operation of entire 100 ft. film capacity at 100 f.p.s. Withstands 10 "G's" acceleration in all directions. Will operate from +20° to +150° F. Heater element can be installed for extreme cold weather conditions. Features Eyemo lens mount (See Lens List) and 3 finder objective turret, corrected for parallax. Equipped with 36 degree fixed rotary disc shutter. Camera speeds variable from 16 to 100 f.p.s. based on voltage control of motor. Either 24 volt DC or 115 volt AC electric motor available.



Z0153 35MM FLIGHT RESEARCH MULTIDATA CAMERA MODEL IV-C is designed for maximum versatility. Will accomplish many different data recording jobs. Model IV-E and Model IV-F will handle either auxiliary data optics or precision continuous strip operation where required. Uses 100 ft. daylight loading spools. Adapter and auxiliary drive for 200, 400 or 1000 ft. magazines available. Eyemo type lens mount. See Lens List. Change gears normally supplied for 5, 10, 20 and 40 f.p.s. Change gears for other speeds available. Single exposure at any pulse rate up to 10 per second. Rotary disc shutter with 36 degree opening normally supplied. Any opening to 135 degrees available. Variable shutter adjustable from 2.5 degrees to 135 degrees available. Following accessories are optional: coding lights, output pulse, fiducial markers, three-power boresight and focusing tool with cross hairs coincident with fiducial markers. Equipped with thermostatically controlled heater for low temperature operation. Operating temperature:
-65°F to +160°F. Camera operates during acceleration at up to 20 "G's" applied in either direction on all three axes. Various drive motors available. Power requirements: 115 volts AC, 400 cycles, 3 phase; 115 volts AC, 60 cycles, 1 phase; 28 volts DC.

FLIGHT RESEARCH INTERVALOMETERS

FLIGHT RESEARCH INTERVALOMETERS MODEL A-32 provide both variable pulse repetition rate and variable pulse duration in a very small light-weight package. Two standard versions contain repetition rate and pulse duration selection suitable for use with AUTOMAX, PACIFIC LABS V-10, BELL & HOWELL 200P and MULTIDATA MODEL III and IV cameras. Provision is made in both standard versions for the addition of other repetition rates without modification of the circuit. NOTE: Other models are available containing the same basic circuits with other repetition rate selections from 20 per second to one per minute and pulse durations from 5 milliseconds to 120 milliseconds.

Z4088 FLIGHT RESEARCH INTERVALOMETER MODEL A-32-1: Repetition rates: 20, 10, 5, 2 and 1 pulses per second. Pulse durations: 18, 30, 60 and 120 milliseconds.

Z4089 FLIGHT RESEARCH INTERVALOMETER MODEL A-32-2: Repetition rates: 60, 30, 6, 2 and 1 pulses per minute. Pulse durations: 18, 30, 60 and 120 milliseconds.

Z4095 FLIGHT RESEARCH INTERVALOMETER MODEL 24 is designed specifically to drive the 35mm AUTOMAX Recording Cameras. Provides four pulse rate selections. Normal pulse rates are between 10 pulses per second and 1 pulse per second, but other ranges may be provided. Corresponding Model 240 control head permits remote selection of pulse rates.

Z4096 FLIGHT RESEARCH INTERVALOMETER MODEL 25 is similar to above except that it provides five pulse rate selections. Model 250 control head permits remote selection of pulse rates.

Z0102 35MM VOUGHT VDR-10 HIGH SPEED DATA RECORDER operates from 24 to 96 f.p.s. 400 ft. capacity magazine with dual register pin intermittent film movement. 1000 ft. capacity magazine available. 28 volt DC motor. Eyemo lens mount. See Lens List. Film indicator on magazine and on drive unit. Thermostatically controlled heaters.



20146 35MM NORTHRIDGE RESEARCH RZ CAMERA is a 35mm 100 ft. daylight load photo recorder designed specifically for use in aircraft, sleds, missiles, and other test vehicles where it is necessary to obtain photographic data by remote operation of the recorder. Available with timing lights, correlation lights, fiducial markers, heaters, pulse operation, correlation switch and various motor drives. Will operate at 10-20-40 f.p.s. and up to 100 f.p.s. with 28 volt DC motor. Precision mounting pads permit interchange of cameras without disturbing boresight. Time correlation is achieved by three simultaneous methods, which include a mid-point shutter pulse, an event correlation mark at the aperture and a continuous time base pulse at the upper sprocket. Can be supplied with special shutter openings to customer's specifications. Accepts all Eyemo lenses. See Lens List.

Z0147 Boresight Kit

Z0148 External Magazine Modification

Z0149 Supporting Lens Mounts

Z0150 Footage Indicators

Z0151 Dovetail Mounts

Z0098 Timing Lights

Z0099 Event Markers

Z7011 35MM BILL JACK STRIKE CAMERA MODEL 10S2B is designed for recording of aerial missile and projectile strike studies. Speed is 16 or 32 f.p.s. through gear changes and a governor controlled motor. Glass aperture plate with engraved cross hair fiducial marks. Correlation pulse from shutter in open position (negative pulse). Camera may be operated remotely or with built-in switch. Two timing lights. 115 volts AC or pulsating DC with 51,000 ohms resistor in line. Eyemo lens mount (see Lens List.) Top and bottom mounting plates are provided. Power requirement: 28 volts DC.

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every product listed in these pages is available for rental.



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Z7005 35MM GORDONFLEX RECORDING CAMERA TYPE 47GE is specially designed for such applications as accurately recording landings of aircraft aboard carriers. Dual pilot pin registration assures accurate film positioning. Two 115 volt AC 60 cycle synchronous motors operate camera at a steady 50 f.p.s. Speed achieved immediately because of unique transport system and torque. Reflex viewfinder permits viewing at time of photographing. 200 or 400 foot external magazines. 1000 foot magazines available on order. Reflex shutter made of stainless steel with 20° opening. (Other openings on request.) Three lens turret accepts Arriflex type mounted lenses. (See lens list).

Z7006 35mm 200 foot capacity magazine.

Z7007 35mm 400 foot capacity magazine.

Z0185 35MM AUTOMAX CINE-INTERVAL CAMERA can be employed for instrument-panel recording, radarscope recording, manometer panel and other types of data recording. Several variations of the standard Automax Model G-1 are available. Custom modification from single to double-frame 35mm can be supplied. Will withstand 15 G's in all directions, 20G's vertical to base, using free turning take-up reels in magazine. Operates from +160°F. to -50°F. Polished hard chrome on steel aperture plate with center relief insures against film scratch. Hard chrome aluminum alloy pressure pad with diagonal dust grooves. Film is supported over entire format area. Right angle mirror focuser can be substituted for pressure plate. Single lens Standard "C" mount or Leica mount optional. Shutter speed is 1/64 second for both cine and interval operation (other shutter speeds available). Camera operates at 16 f.p.s. (other frame speeds available). 200, 400 or 1,000 ft. magazines (standard Mitchell). 200 ft. displacement type magazine available for space conservation. Motor will operate at 16 to 30 volts DC. Electrical components meet AN specifications for airborne use. Custom modified models are available to meet other requirements.

Z5133 35MM AUTOMAX CAMERA MODEL G2 is similar to above in basic construction and features. Camera is designed to record three separate channels of information: (1) Miniature Cathode-ray tube which is piped through a series of mirrors from the top of the camera to the film plane; (2) Data Recording chamber which is equipped with data card and footage counter and (3) Normal taking lens for filming subject. Gear driven 27 volt DC, 2300 RPM, motor provides maximum interval of 5 pictures per second. Equipped with 152mm f/2.7 Wollensak Raptar (other lenses available).

Z0186 MODEL 24 INTERVALOMETER provides frame rates of 1, 2, 5, 10 and 16 f.p.s. (other intervals on order). Unit mounts to base. 28 volts DC.

Z0187 MODEL N-10 INTERVALOMETER mounts on panel for remote control. Provides frame

rates from 1 to 10 per second. Provision for adjusting pulse length. 28 volt DC. Positive lock-in frame rate selector.

Z0188 MODEL 115 POWER SUPPLY converts 115 volt AC to 28 volt DC. Maximum 4 amperes. (Higher capacity available on order.)

Z0191 35MM 200 FT. TRAID 700 DISPLACEMENT MAGAZINE is specially designed for use on Automax camera but can be used with any camera having a Mitchell mount. Only $9\frac{3}{4}$ " high and $6\frac{1}{4}$ " wide.



Z0146 35mm PACIFIC LABORATORIES V-10 RE-CORDER CAMERA is designed to meet the severe requirements of operation encountered in the flight testing of commercial and military aircraft. It is not a modified motion picture camera, but a new design based on many years experience in the use and application of photographic recorders for flight test programs. The versa-tility of the electro-mechanical drive system tility of the electro-mechanical drive system within the camera permits a wide variety of automatic or remote control circuits to be used to meet the special requirements of particular test programs. Continuous or intermittent operation from minus 50°F to plus 180°F. Will take 12 "G's" in any direction. Adapter plate for Mitchell magazine provided. Threaded ring for Leitz interchangeable lenses is standard equipment. Evento and various other mounts avail. ment. Eyemo and various other mounts available. See Lens List. Rotating disc shutter with 90° opening. Other shutter openings on special order. Film is held in focal plane with spring loaded hard chrome plated pressure plate. Pressure plate support contains mirror assembly for viewing through the lens. The Camera is also available with self-contained interval timer and external connections to provide remote selection of four interval rates and cine operation. The interval rates available permit photographic records at four, two and one frame per second rate and one frame per two second rate as well as cine at 16 f.p.s. rate.

Z0292 35MM PACIFIC LABORATORIES V-20 RE-CORDER CAMERA is similar to V-10 but offers a double frame format.

Z0293 35MM PACIFIC LABORATORIES VR-10 RECORDER CAMERA is similar to V-10 but offers a built-in transistor timer.

Z0294 35MM PACIFIC LABORATORIES VRO RE-CORDER CAMERA is similar to V-10 but is used for radar recording applications.



20401 35MM CANADIAN APPLIED RESEARCH LTD. MK 7 INSTRUMENTATION CAMERA features two interchangeable film gates, permitting formats of 18 x 25mm or 25 x 36mm. Either type can be supplied as initial equipment or as an accessory. Rotating disc type focal plane shutter is designed to operate at a basic exposure time of 1/100 second with the 18 x 25mm format. Camera mechanism is driven by a continuously-running, constant-speed, 28 V DC motor. Separate electrical circuits open and close the shutter and automatically actuate the film transport. Daylight-loading magazine holds 100 feet of 35mm film. Quick-release lever allows rapid interchange of 400 ft. magazines. Screw-in lens mount has a standard "Leica" thread. Adapter rings available for other types of lenses.

rings available for other types of lenses. The MK 7 Camera has an enviable record of reliability. Each electrical and mechanical component is painstakingly inspected at every stage of assembly. In addition, all cameras are rigorously tested before leaving the plant. Compact design and simplified mounting enable the MK 7 camera to be easily moved from one location to another. 28mm f/3.5 Angenieux Retrofocus or 18mm f/1.7 Cooke Speed Panchro lenses can be supplied with camera. For other lenses see Lens List.



Z0402 PULSE ADAPTER AND TIMER is designed for use with the MK 7 Camera. Its function is to convert positive pulses of 28 volt DC (15 milliseconds or longer at minimum intervals of 300 milliseconds) to the ground pulses which are required for Camera operation. It can also supply pulses for opening and closing the shutter at pre-selected speeds.

Z0403 INTERVAL AND EXPOSURE TIMER can supply the MK 7 Camera with a controlled range of exposure times from 1/100 to 1/5 of a second, and interval times between exposures of $\frac{1}{2}$ to 60 seconds. Accuracy is 5% of set interval and 10% of exposure setting.

For complete index of the world's largest inventory in the motion picture and photo instrumentation fields, please turn to pages 125 - 128.

PHOTO INSTRUMENTATION

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Z4061 35MM AREMAC MODEL 1013 CAMERA is designed for recording instrumentation data for test evaluation. Features: constant 1/50th second exposure irrespective of frame speed; remote selection of automatic 4, 8 and 16 frames per second; also any frame rate less than 5 frames per second which may be pulsed manually or by external intervalometer; employs standard Mitchell film magazines; normally supplied with B & L 25mm f/2.3 Baltar lens. Will perform under severe operational conditions. Remote control panel, incorporating manual and automatic frame rate selector switches, footage and frame counters, is available as accessory. Will operate at accelerations up to 12 "G" at altitudes up to 60,000 feet and at temperatures from -60°F to +160°F.



Z7091 BEATTIE VARITRON MODEL DR-2 CAMERA designed for airborne or ground data. Camera is pulse operated, variable sequence. Varitron will accept 35mm or 70mm film magazines with capacity of 100 ft. daylight loading spool or 200 ft. darkroom load. Frame rates up to 8 per second on 35mm film and up to 4 per second on 70mm film. Frame frequency is controlled by an external timer and intervalometer. Bellows provided so that various focal length lenses may be used for either 35mm or 70mm format. Shutter is electrically operated type with maximum opening of 1%". Designed for extremely long life at fast cycling speeds. Shutter speeds variable from 1/50 to 1/150 second by varying the voltage input remotely. Data recording chamber is integral part of camera body. Automatically prints data such as real time, frame number, and written information of each frame. 23.5 to 29 volts DC. Dimensions: $7\frac{1}{4}$ " x $7\frac{3}{4}$ " x $13\frac{1}{2}$ ". Weight: 20 pounds.

Z7092 REMOTE CONTROL BOX C-2 contains the shutter speed indicator, shutter speed control, Model N Series intervalometer, heater control, camera power control and frame counter. Size: 6" x 8" x 12".

Z7093 INTERVALOMETER MODEL N-10 is a lightweight, compact instrument for controlling the cycle rate of camera recording devices. Pulse rates of 1, 2, 4, 5, 8 and 10 per second. Pulse duration variable from 25 milliseconds to 70 milliseconds. 20 to 30 volt DC. Dimensions: $3\frac{1}{4}$ " x 9". Weight: 2 pounds.



Z0406 35MM CANADIAN APPLIED RESEARCH LTD. MK 8 AERIAL CAMERA features a continuously-moving film system which compensates for image motion during exposure. The system is especially effective for low level photography and eliminates the necessity of a separate Interval Timer. Single 18 x 25mm frames are exposed on 35mm film.

The exposure interval depends on aircraft speed, height and overlap desired. This can be varied by substituting appropriate gears in the camera. The change gears supplied enable interval times of $^3\!/_4$, $1^1\!/_2$, $2^1\!/_2$ and 5 seconds to be obtained. Alternate gears, which give additional exposure intervals of from $^1\!/_2$ second to $8^3\!/_4$ seconds, are available as accessories. A frame marking attachment and counter assembly is used to record any outstanding features of the survey operation. Illuminated camera exposure counter is photographed at every exposure. Fiducial (reference) mark appears on the film at every tenth exposure. Fixed focus 18mm f/1.7 TTH Cooke Speed Panchro lens is recommended. See Lens List. Precision-built 28V DC motor provides constant shutter speed of 1/100 second.

Z0404 MAGNIFYING VIEWFINDER can be conveniently fitted in place of the magazine to permit through-the-lens focusing. An external lever operates an auxiliary magnifier for critical focusing.

 ${\bf Z0405}$ ${\bf 400}$ FT. MAGAZINE can be used with either the MK 7 or the MK 8 Cameras.

Optical and Magnetic SOUND SYSTEMS

for most types of professional cameras 8mm • 16mm • 35mm



Z0270 35MM ROBOT 24 x 24MM SEQUENCE CAMERA is a precision engineered registration camera designed specifically for industrial and scientific recording. Heavy duty spring motor automatically advances 18 frames at one winding. Detachable back can be replaced by 30 ft. or 200 ft. magazines. Variety of interchangeable

lenses available. Precision metallic rotor shutter with "X" contact provides electronic flash synchronization at all shutter speeds. "Mot" contact for synchronization of attachable electric motor.



Z0271

Z0271 35MM ROBOT 24 x 36MM SEQUENCE CAMERA same as above except uses standard 24 x 36mm double frame.

Z0272 30 Ft. Robot Magazine

Z0273 200 Ft. Robot Magazine

Z0274 Robot Electric Booster Motor 24 volts DC

THE TREND TO 8MM SOUND

see page 21



Z0506 35MM SHACKMAN AUTOCAMERA MARK 3 is designed to cover a wide field in industrial and scientific work where the rapid production of high quality 35mm micro-film is required. May be used for oscilloscope recording instrument recording, process timing, photomicro-graphy, document copying, etc. Camera is fully automatic in operation. The exposure and film transport being operated by a single electrical impulse of approximately \(\frac{1}{2} \) sec. duration, may be provided at either 12 volt or 24 volt DC via a "biassed off" push-button switch giving manual remote control or an electrically controlled timer giving exposures at any predetermined intervals up to a paperoximate rate of few sec. intervals up to an approximate rate of four per second. Gear driven film change is designed to give full two hundred exposures of $1" \times 1"$ or three hundred $1" \times 3'$ with a single winding of the twin main springs. Standard lens is a 36mm f/3.5 Wray instrumentation lens in special anti-vibration mount, or in a calibrated mount focusing from 7" to infinity. Other lenses from 18mm to 150mm are available. Shutter has speeds from 1/10 to 1/200 second and can be fitted with electronic sync contacts. Gate provided with focusing glass. Equipped with 21 ft. capacity daylight loading film magazine (for 200 1" x 1" or 300 1" x 3 4" pictures). Electrical contact coupled with an escapement lever may be used to operate an exposure indicator or for other triggering purposes.



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Z1022 35MM WOLLENSAK TL35 TIME LAPSE CAMERA is a data recording time lapse camera to photograph panels, meters, gauges, instruments, mechanical devices, etc., for time study and sequence analysis of movement. Each exposure is made at a predetermined interval depending upon the motor used. A range of different speed motors is available to select a specific time interval to meet a definite requirement. The motor used determines the exposure time interval. Exposure time lapse ranges from one picture every six seconds to one picture every thirty minutes.

PHOTOVISION TIME LAPSE MECHANISM consists of a solenoid which will actuate the camera for single frame and an intervalometer which will supply electrical impulse to the actuating device. These units are available for Bell & Howell 16mm Filmo or 35mm Eyemo.



Z0192 PHOTOVISION SOLENOID consists of 2 electrical units: one a rotating continuous device and the other an intermittent push-pull device. Solenoid will operate a 16mm Bell & Howell Filmo or 35mm Eyemo camera through one complete cycle of exposure. Can be quickly installed or detached and will not interfere with normal spring or motor drive operation. Solenoids available for either 24 volt DC or 80 volt DC operation. Specify camera when ordering.



Z0193 PHOTOVISION INTERVALOMETER provides means of regulating interval between exposures. May be set to obtain an exposure in a continuous range from one second to four minutes. Operates on 115 volt AC. Built-in rectifier automatically converts 115 volt AC supply to 80 volt DC output required by solenoid.

A1440 BELL AND HOWELL FOCUSING ALIGN-MENT GAUGE permits lateral "rack-over" movement of Eyemo camera when prismatic focuser is being used. Provides full compensation for displacement of image at magnifier and aperture, insuring parallax-free results. Fits between camera and tripod head.

PHOTO-CONTROL CORPORATION CAMERZ

PCC CAMERZ MODELS 2, 3, 4, and 5 may be used for radar and image tube recording, industrial security, photo instrumentation, X-Ray, microfilming and slide duplicating. Ruggedly constructed professional cameras designed for users who wish an economical, positively locked, pre-set focus camera which does not require a viewfinder. Focusing and composing are accomplished by ground glass viewing and are positively locked in position. Designed to accept 2 inch (50mm), 3 inch (75mm), 4 inch (101mm), and 5 inch (127mm) f/4.5 lenses, respectively. Optics are mounted in Camerz heavy duty sync shutters with adjustable speeds, 1/10 second thru 1/200 second and T. and B. (5 inch, 127mm, speeds 1 second thru 1/100.) Cameras focus from infinity down to 15 inches. (Model 5 focuses from infinity to 43 inches). Available with other focus distance settings on special order. Camerz are made in four models, 5 film sizes (35mm, 46mm, 52mm, 61mm and 70mm) and 17 different formats to meet every possible recording situation. May be equipped with 100 ft. or 200 ft. manual or electric film magazines. Features: Rapid interchange of film and format sizes; 600 to 4000 exposures per roll; ground glass focusing; positive locked controls; negative numbering (or data); many formats and film sizes; vertical or horizontal equally convenient; ideal for close ups. (Write for

COMPLETELY AUTOMATIC CAMERZ

Z5631 PCC CAMERZ MODEL 2A, 3A or 4A complete with automatic trip and wind control, basic negative numbering assembly with connecting cord and interchangeable lower numbering periscope and ground glass to match format ordered. Equipped with either 50mm, 75mm or 101mm f/4.5 lens. (Please specify).

Z5632 PCC CAMERZ MODEL 5A complete with automatic trip and wind control, basic negative numbering assembly with connecting cord and interchangeable periscope and ground glass to match format ordered. Equipped with 127mm f/4.5 lens.

MANUAL CAMERZ

Z5633 PCC CAMERZ MODELS 2M, 3M or 4M complete with basic negative numbering assembly, interchangeable lower numbering periscope and ground glass to match format ordered. Equipped with 50mm, 75mm or 101mm f/4.5 lens. (Please specify).

Z5634 PCC CAMERZ MODEL 5M complete with basic negative numbering assembly, interchangeable lower numbering periscope and ground glass to match format ordered. Equipped with 127mm f/4.5 lens.

Z5319 35MM RADAR RECORDING CAMERA TYPE 0-15 has been designed to meet the environmental requirements of airborne operation. Unit consists of complete camera and detachable magazine chamber with 35mm x 100 ft. capacity. Camera is electrically operated with radar impulse initiating operation of the camera. Camera can be controlled for either PPI or Sector Scan operation. For identification purposes, a data card and a series of six indicator lamps inside camera body record certain radar operation information, such as ranges, upon film. Standard lens is 35mm f/2.3 (lenses of other focal lengths available). Indicator setting on face of camera permits lens settings from f/2.3 to f/16. Exposure counter provided to indicate number of exposures made. When the Type A control is used, the camera will operate to take a picture of every cycle of radar antenna scan, every

other scan, three consecutive scans out of every 60. (Other controls available to operate camera to provide a picture of every scan, every other scan, one every four scans, or one every twelve scans). Thermostat-controlled heaters, in both magazine and camera body, are provided for operation of the unit in severe environments. Power requirement: 28 volt DC, 10 amps. Maximum Film Transport Cycle: 20 milliseconds. Gordon Enterprises can provide boresights, focusing lens mounts and many other custom modifications on request.

Consultation Service

Gordon Enterprises Sales Department is comprised of trained and experienced personnel, thoroughly familiar with standard and specialized photographic equipment. While all personnel have an extensive knowledge of motion picture and photo instrumentation requirements, each is a specialist in a particular field. Photographic techniques have become so complex in recent years that it is impossible for any one person to supply all the pertinent information. When you write, wire or call, your inquiry will be referred to a member of the sales force best qualified to answer your questions to your satisfaction.

Z4065 35MM CAMERAFLEX BORESIGHT CAMERA WITH 40 INCH MIRROTEL LENS AND RADAR SECONDARY MOUNT photographs target being tracked by radar set. Target is sighted through an aperture in radar reflector. 40 inch Mirrotel lens is mounted in a fixed position (other lenses available). Camera is boresighted so that optical axis of lens is aligned with electrical axis of radar antenna. Radar secondary mount has azimuth, elevation, and camera focusing adjustments which are independently adjusted. Lens, camera and camera focusing systems are mounted on a removable plate. Camera is driven by a thyratron pulse drive unit. Picture speeds up to 10 per second.

Z4066 CAMERAFLEX PULSE DRIVE UNIT MODEL MP1P is a single frame drive unit which permits taking single pictures either intermittently or at a predetermined interval rate up to ten pictures per second. Features: a constant 1/36 second exposure for varying frame rates; built-in commutator closes circuit each time camera shutter is opened; commutator may be used to trigger strobe lights or record time signals; high-speed magnetic clutch is connected in the plate circuit of a 3D22 thyratron, which is fired by incoming pulse signal and de-ionized as camera completes a picture cycle; unit is driven by a 1/75 H.P. 115 volt AC, 60 cycle, synchronous motor. May be used for time lapse, animation, data recording, photographic instrumentation or simultaneous operation of multiple camera installations.

Z4068 CAMERAFLEX PULSE DRIVE POWER SUPPLY furnishes necessary DC voltages for operating pulse drive clutch in series with 3D22 thyratron tube. Requires 115 volts AC, 60 cycle, input supply. Co-axial connector is provided for pulse signal input. Pulse drive unit can also be operated by means of a relay contact closure. Commutator makes contact when camera shutter is fully open.

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Hulcher 70

70MM HULCHER rapid sequence still picture cameras are capable of photographing 2½" x 2½" or 2½" x 5" format on 100 ft. internal spools or 400 ft. or 1000 ft. external magazines, depending on model. The Hulcher cameras will accommodate a vast variety of interchangeable lenses from wide angle to extreme telephoto. See lens list. Unique film transport design has completely eliminated all reciprocating parts, greatly reducing vibration, jamming, maintenance and weight. All models have double rotating disc shutter arrangement operating close to the focal plane. Because of its versatility and ability to provide exacting details of fast-moving action the Hulcher camera is ideally suited for recording sports, military, research and industrial assignments.



Z0106 70MM HULCHER MODEL 100 features two picture formats $-2\frac{1}{4}$ " x $2\frac{1}{2}$ " or $2\frac{1}{4}$ " x 5". Frame rates: up to twenty-five 5" pictures per second or fifty $2\frac{1}{2}$ " pictures per second. Exposure adjustable from 1/120 second to 1/360 second. Focusing is provided through a full size screen by means of a reflex type viewfinder.

The standard camera is operated from 110 volt AC or DC power supply. Camera speed may be varied by means of a control knob on the rear of the camera. 28 volt DC is also available.

Z0161 Modifications for 400' or 1000' 70MM magazine.

Z0162 Timing Lights - 2 neon.

Z0163 400' 70mm Magazine.

Z0164 1000' 70mm Magazine.

Z0165 Extra sprockets for military standard or ASA standard (specify).

Z0166 White heat reflectant finish.



20167 70MM 2½" x 2½" HULCHER MODEL 104 is designed to operate at 10, 20, 30, 45, 60 and 75 frames per second. Adjustable rotating disc shutter and frame rate combinations allow for exposures ranging from 1/50th of a second to 1/15,000th of a second. Film capacity is 400 feet (other size magazines are available). Centrifugal blower provides a positive pressure in the front section of the camera thereby maintaining a flat film plane. Film is locked in the aperture during exposure. Speed is controlled by means of six independently set and fixed centrifugal governors in conjunction with a transformer providing proper voltages for the six speeds. Wedge type fiducial markers. Timing and event marking lights are provided Lens mounting flange close to focal plane provides for use of short focal length lenses or as long as required. Power 115 volts 60 cycle AC single phase. (Available for other voltages.) Weight: 35 lbs.

why wait?

If budget limitations prevent your buying equipment at this time . . .

rent it NOW!

Z0178 70MM HULCHER MODEL 103 operates at fixed sequence rates of 5 and 10 pictures per second or 15 and 20 pictures per second (please specify when ordering). This Model has a wide range of shutter speeds from 1/125 second to 1/2000 second. Shutter speeds can be set independently of frame rate. Camera is powered by 24-28 volt DC motor. Available also in 12 volt DC or 115 volt AC. Reflex focusing may also be provided.

Unique optical type view finder allows operator to keep both eyes wide open, one eye sees a bright white frame indicating area being photographed. The other eye sees the entire scene. Simply changing the reticle provides view finders for other focal length lenses.



Z0168 70MM HULCHER MODEL 102 will expose up to 30 $2\frac{1}{4}$ " \times $2\frac{1}{2}$ " pictures per second. Exposures range from 1/25 second up to 1/4320 second. Shutter openings may be quickly changed by an adjusting knob on front of camera. A table of exposures for various sequence speeds and shutter openings is conveniently mounted on the rear of the camera.

Full size reflex focusing on a fine ground glass screen provides for precise and rapid focusing. The first surface mirror set by a knob on top of the camera is automatically returned when the camera is started. In addition to the reflex focusing system, the camera is equipped with a folding sports type view finder. The feature enables the operator to accurately track fast moving action.

The camera is powered by a small high torque electric motor, operated by a portable 12 volt battery. It may also be operated from the standard 115 volt AC line by a 12 volt transformer.

Z0169 Camera carrying case (aluminum).

Z0170 12 volt battery charger.

Z0171 12 volt Nickel Cadmium battery.

Z0172 Modifications for single frame operation (trigger control).

Z1073 Modifications for single frame operation (trigger or remote).

Z0174 Modifications required to operate camera from 115 volts.

Z0175 Modifications for 24-28 volt operation at frame rates from 10 to 30 per second.

Z0176 Electronic Repeating Flash (Sequi-Strobe unit complete with one reflector synchronized and installed).

Z0177 Additional reflector and lamp (for two light operation).

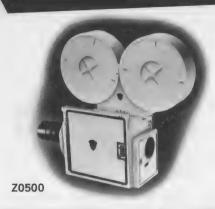
 ${\bf Z5055} \;\; 70 {\rm mm} \;\; {\rm film} \;\; {\rm processing} \;\; {\rm unit} \;\; 100' \;\; {\rm capacity} \;\; ({\rm Gilco})_{\cdot,}$

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20500 70MM MITCHELL FCD70 FULL FRAME (2½" x 2½") motion picture camera was primarily developed for high speed photo instrumentation work. The intermittent mechanism follows the standard Mitchell design incorporating a pulldown claw and precision dual registration pins. The entire unit, or the front aperture plate only, can be readily removed for inspection and cleaning. The complete intermittent can be removed and replaced without losing timing relationship between the shutter and intermittent mechanism. Shutter is of the rotating focal plane type and is adjustable in 5° increments from zero to 120°. Equipped with a mid-shutter correlation pulse. Three lens turret can be readily unlocked and rotated. A built-in behind-thelens filter turret accommodating four 3 inch square filters is provided. Depending on the gear transmission in the camera and drive motor, various frame rates up to sixty per second are available. Camera can be driven either by a single or two-speed synchronous motor equipped with a DC field winding. Motor is readily attached or removed. 400 ft. or 1000 ft. magazines are equipped with an adjustable friction brake on feed side to provide proper film tension. Take-up is obtained by a separate magize motor equipped with a friction clutch. Various types of coded time signals may be placed on the film.

Z0501 Carrying Case.

Z0502 400 ft. Magazine.

Z0503 1000 ft. Magazine.

Z0504 Boresight unit with ground glass reticle.

Z0144 70MM PHOTOSONICS 4A RECORDING CAMERA is specifically designed for applications requiring a moderately high speed frame rate and a picture area of 2.25" x .740". Speeds are selectable to 100 f.p.s. Utilizes 100 ft. daylight loading spools. Drum type shutter with two variable openings operates by changing shutter blade inserts in drum, up to a maximum opening of 36 degrees. Intermittent type movement with positive full pin registration may be removed from camera for cleaning and oiling, or for installation of boresight. Camera mechanism, film movement unit and film spools are contained in a compact unit. Camera can be supplied with a thermostatically controlled heater for operation at temperatures as low as minus 65°F. Motors are available with input voltages to suit individual applications. A special motor drive, which is rear mounted, replaces the side motor when a narrower configuration is required. Integral heaters, buckle switch, two light timers, shutter indication switch, and single or dual camera control units available as optional accessories.

Z0145 10 Power Boresight Tool for optical alignment and critical focusing.

prices and price lists

As you use this book, you will see that it is much more than a compilation. Many pages of charts and other valuable material can be of practical help to you for years to come. In view of the long life of these references, and of the continued developments and changes in motion picture equipment particularly in photo instrumentation - it would not be realistic to include prices of equipment in this catalog. Your inquiries to the Gordon Sales Service Department will bring you current quotations promptly. At the same time, you will be informed of any superseding models of the products you seek.

23015 MAURER 220 CAMERA permits use of focal lengths other than the basic 3 inch lens. The 220 retains essentially the same physical dimensions as the P-2. Optional automatic iris diaphragm control system readjusts the f/stop for optimum exposure to ambient light conditions. (Must be factory installed only on the 1½ inch Biogon Lens.) Uses 50 ft. magazine of 70mm perforated film (Spec. MS33525) for 2¾" x 2½" picture. Single pulse will advance 5.5 frames per second. Continuous pulse (runaway) will advance film 6 frames per second. Camera is operated by pulse generator switch or CP-2 Intervalometer. Focal Plane Shutter provides speeds of 1/500, 1/1000 and 1/2000th second exposure. Camera operates on 24 to 29 volts DC. Acceleration range: Operational, 8G; Non-operational, 12G. Ambient temperature range: —65°F to +160°F. Various lenses up to 12 inches focal length available. Write for full details, stating photographic requirements.

Z0156 70MM MAURER P-2 AUTOMATIC CAMERA operates at sequence rates up to six exposures per second. Detachable magazines will hold 15 or 50 feet of 70mm film, 214 " x 214" format. 76mm f/2.8 Ektar lens, shutter speeds 1/500, 1/1000 and 1/2000 second. Built-in event marker and fiducial marks. Camera is powered by 28 volt DC motor.

Z0179 70MM BILL JACK SCIENTIFIC INSTRUMENT CO. HIGH SPEED SEQUENCE CAMERA photographs 2½" x 2½" pictures on 70mm film at speeds up to 75 f.p.s. Beater cam movement, rotating disc 81 degree fixed shutter, Hasselblad lens mount, 110 volt AC, 60 cycle motor operates through Variac to adjust speeds. Equipped with 1000 ft. individual compartment film magazines.

Z3170 70MM BENSON-LEHNER PHOTO-GRAPHIC RECORDER, MODEL HS-70A is a full frame (2½" x 2½") Camera, capable of frame rates up to 80 f.p.s. Ideally suited for telescope tracking installations, the camera's extremely smooth, DYNAMICALLY BALANCED MECHANISM makes it possible to record images with superior definition. Features 70mm ASA Type 1 (0.234 pitch) film, 1000 ft. interchangeable magazines, frame speeds from 7.5 to 80 f.p.s., 208 volt AC, 60 cycle, 3-phase, DC exited field, synchronous motor (110 volt AC, 60 cycle, single phase available at additional cost), shutter is of focal plane rotating disc type with opening adjustable from 2 degrees to 90 degrees. Shutter correlation pulse is synchronized by motion of shutter shaft and triggered at apex of shutter opening. Set of four fiducial marks provided at frame edge define mutually perpendicular axes are artificially illuminated to insure proper exposure regardless of ambient light conditions. Timing light assembly incorporates two NE51H neon lamps, which record 100 cycle pulses and an elapsed time code on the film where the film is running continuously. Film buckle and end-of-run switch automatically shuts off power to motor if film should jam or film supply is exhausted. Separate torque motor is provided to drive take-up spool and maintain necessary tension on film. Braking system automatically takes effect when camera is turned off. Camera is available in either left-hand or right-hand versions. Filter holders for either gelatin or glass filters, or both. Boresight tool is supplied for aligning each camera. Camera and all accessories are naited, a high era and all accessories are painted a high gloss white for heat reflection. Camera is designed to meet rugged environmental conditions encountered in desert and coastal range areas. Complete operational unit weighs approximately

21050 70MM MITCHELL-VINTEN-AERIAL AND DATA RECORDING CAMERA is the most successful military reconnaissance camera in service in Canada and Europe. It is employed by at least fifteen individual air forces and is being used in conjunction with several advanced electronic systems for more positive tactical results. Camera is compact, rugged and basically simple in design. It is fitted with a 4 inch f/2.8 or 12 inch f/4 Taylor Hobson Cooke lens as standard equipment. Other lenses can be fitted. The lens diaphragm as well as camera running speed is remotely controlled. Choice of three different adjustable lens stops can be selected in the air. Camera possesses a constant speed focal plane shutter giving exposure times of 1/1000th second. and 1/2000th second at 8 pictures per second. These fast exposure speeds insure minimum distortion even at low altitude high speed operation. Single shot facility is also fitted to camera, and in addition the camera carries a heater and thermostat; inching knob and mounting hole in two planes. A magazine containing 100 feet of perforated 70mm film is standard, providing 500 full 2½ inch square negatives. Camera is powered by 24/28 volt DC motor.

CUSTOM ADAPTATIONS

Gordon Enterprises can adapt most any stock camera for special use, such as single-frame pulse filming, or extended filming by use of external magazines, etc. The usefullness and versatility of relatively simple motion picture and photo instrumentation cameras may be vastly extended by such adaptations. Custom services can be accomplished so it does not interfer with normal operation of the equipment. Our Engineering Consultants will be happy to discuss adapting your equipment for special photographic work. Please write, describing your present camera and the intended application.

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OSCILLOSCOPE CAMERAS

Z5023 16MM FAIRCHILD MOTION ANALYSIS CAMERA OSCILLOSCOPIC MODEL HS-0151 is similar to HS-101 (Z5021) but without rotating prism for recording of oscilloscope traces and streaks with high speed continuously moving film. Maximum speed of 200 feet per second when HS-504-C1 Motor Kit is used. 100 ft, capacity daylight load film spool.

Z5024 16MM FAIRCHILD MOTION ANALYSIS CAMERA OSCILLOSCOPIC MODEL HS-4151 similar to HS-401 (Z5022) but without rotating prism for recording of oscilloscope traces and streaks with high speed continuously moving film. Maximum speed 150 feet per second when HS-504-B1 Motor Kit is used. 400 ft. capacity daylight load film spool.







27035 35MM FAIRCHILD OSCILLO-RECORD CAMERA TYPE F-246A designed for both still and continuous motion photography of high-speed transients, stationary patterns of periodically recurring phenomena presented on a cathoderay oscilloscope. Use of periscope permits operator to view image at same instant of recording. Film speed of 60 inches per second to 1 inch per minute. Speed ratio 3600 to 1. Electronic thyratron speed control provides smooth continuous adjustment over range of 60 to 1. Clutch shifts range 60 to 1, giving continuous speed change over entire 3600 to 1 range. Timing light for determining rate of film speed recorded along edge of film. Film capacity: 100 feet internal; 400 and 1000 feet with external magazine. Data recording chamber is provided. Shutter installed for still picture operation and interlock for continuous motion photography. Shutter speeds of 1 second to 1/200 second. 50mm f/2.8 lens. Dimensions: 9½" x 11½" x 7½". 110 volts, 60 cycle AC.

Z1009 16MM FASTAX WF6 OSCILLOGRAPHIC CAMERA is similar in design to the WF3 camera except rotating prism is not supplied. It will expose from 4 feet to 200 feet of film per second for continuous recording of streak or oscillographic image. Uses 100 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1017 16MM FASTAX WF22S OSCILLOGRAPHIC CAMERA is similar in design to the WF4S camera, except rotating prism is not supplied. It will expose from 8 feet to 210 feet per second for continuous recording of streak or oscillographic image. Uses 400 ft. daylight loading film spools. 2 inch f/2 Fastax Raptar lens in focusing mount.

Z1010 35MM FASTAX WF7 OSCILLOGRAPHIC CAMERA is similar in design to the WF5 camera, except rotating prism is not supplied. It will expose from 3 feet to 190 feet of film per second for continuous recording of streak or oscillographic image. Uses 100 ft. daylight loading film spools. 13% inch f/2 Fastax Raptar lens in focusing mount with double focusing scale. Scale in color "Red" is used for focusing when using the removable reflex finder behind the lens.



35MM PID NON-BANDING SLOW SPEED STRIP RECORDER MODEL OC-8000 offers fast, slmple and extremely accurate photographic evidence of electronic phenomena as displayed on the face of the cathode ray tube. Requires no special photographic skill. May be quickly and easily set up. Constant film advance at all speeds is assured through use of synchronous motor and a specially designed transmission which allows quick and positive speed change. Speed range is 3/32 inch per minute to 18 inches per minute. Other ranges are available to meet special requirements. Camera has provision for single-framing. Built-in electric counter indicates number of frames, inches or feet remaining in magazine. Beam splitter permits constant parallax-free viewing by operator while recording. Indicator lamps and interlocks show film breaks and end of film, with an automatic shut-off. Provision is made for manual film advance. Single individual compartment type magazines will handle 100 ft. daylight loading spools or 400 ft. lab loads. Magazines are easily and quickly inter-changeable. Equipped with Tektronix 4-bolt mount. Adapters are available for other oscilloscopes. Camera may be rotated 90 degrees to permit recording on either axis. Coated f/1.5 lens, with diaphragm stops to f/22, records absolutely flat field in film plane at picture area. Shutter is electrically operated.



Z3165 35MM PID HIGH SPEED STRIP FILM CAMERA MODEL OC-1-35S can be employed in the study of phenomena with a rapid rate of change, such as physical motion in a mechanical device, where it is often necessary to provide a means of converting the physical variable into an equivalent electrical signal. By placing this electrical signal on a cathode ray oscilloscope, and by using a camera most compatible to the requirement, very high speed transients can be recorded. Features: speed from .1 inch per minute to 1000 inches per second; Variac enclosed in control box for film speed control; camera can be rotated 90 degrees to record on either axis; image to be recorded is pin-pointed onto recording film; beam splitter permits viewing while recording; viewed image precisely matches recorded image without parallax; built-in boresight; automatic shut-off; 51mm f/1.5 seven element coated Raptar lens; braking device to stop film at any point is optional; will record phenomena with very high speed transient peaks.

Z3167 70MM PID HIGH SPEED STRIP FILM CAMERA MODEL OC-1-70S is similar to above but utilizes 70mm film.

whatever your requirement... standard camera or special photographic system... outfitting a complete motion picture studio or a missile tracking facility... lighting a small lectern or a large set — interior or exterior... equipping an entire industrial photographic department, or supplying a miniature camera for satellite or anti-submarine warfare use... for purchase or for rental... you will find what you want in these full stocks, — or Gordon Enterprises will make it to your specifications.

WHEREVER YOUR PROJECT is to be located — on, above, under land or water, in or out of daylight, in or out of conventional environments, Gordon Enterprises will deliver — to your lasting satisfaction!

MOST IMPORTANT, every individual at Gordon Enterprises is interested in working with you... to answer your technical questions clearly and promptly... to assist you conscientiously in your search for the most practical equipment for your purpose, selected from the world's largest inventory... to recommend accessories and mechanical improvements that will save you days, dollars and doubts.



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Z8000 35MM GENERAL RADIO OSCILLOGRAPHIC CAMERA TYPE 651-AE designed to record trace of cathode ray oscillograph. Film is driven continually past aperture so that trace of horizontally deflected spot is recorded as a continuous line. Speeds from 5 to 35 feet per second available by varying input voltage. Driving sprocket and take-up reels are driven by separate motors. Torque characteristics are such that proper film tension is maintained. 100 ft film capacity on special supply and take-up reels. Available with 2 inch f/1.5 lens. 115 volt AC-DC. Size: 12" x 12" x 16". Weight: 32 lbs.

Z8001 35MM GENERAL RADIO OSCILLO-GRAPHIC CAMERA TYPE 651-AG is similar to above except a commutator on the side of sprocket accurately frames exposures for projection, by triggering stroboscopic light of 621-M Power Stroboscope. Speed of camera controlled by Variac on Power Stroboscope. Speed control and stabilization can be governed to flashing rates from 500 to 1500 per second.

Z8001 GENERAL RADIO TYPE 621-M POWER STROBOSCOPE used with Type 651-AG Oscillographic Camera for freezing action from 500 to 1500 frames per second and to project at normal speed to obtain motion at ultra slow speed. 621-M Stroboscope includes a power panel, control panel and two Type 621-P11 lamp assemblies.



Z3384 35MM WARRICK OSCILLOSCOPE RECORDING CAMERA MODEL F7 is a shutterless, continuously moving film type camera. Film travel variable from 180 to 1500 inches per second. Film velocity constant within ±1.5%. Camera speeds constant despite voltage fluctuations. Has start-stop feature and automatic stop after predetermined footage exposed. Equipped with 2 inch f/1.5 lens in focusing mount. Will record full frame image of 2 to 5 inch oscillates. Lenses to cover other fields optional. Equipped with two marker lamps having individual inputs for time pulse and event timing. Marks recorded at film edge. Magazine capacity 1000 feet. Camera can be provided for operation on 115 volts AC or 27.5 volts DC power. Size: 22" x 1814" x 71/2". Weight (with magazine): 44 pounds.



Z5097 FAIRCHILD MODEL F-296 POLAROID OSCILLOSCOPE CAMERA delivers photographic record of single transients or identical repetitive phenomena in less than a minute. Through its fast, easy operation and rapid print delivery, this camera hardly interrupts laboratory procedures. Cameras do not require focusing or dark room processing. Mounted on Oscilloscope Bezel and Adapter. Consists of: Polaroid-Land Camera, adapter ring, hood, special lens and shutter, support rod, critical focusing device and release cable. 75mm f/1.9 Wollensak Oscillo-Anastigmat lens with #3 Alphax Shutter having speeds of 1 sec. to 1/100 sec., "time" and "bulb". Fixed Focus to give .92:1 image (adjustable for critical positioning). Picture Size — 3½" x 4½" producing a single image on each print. Dimensions — 14" long, 6" high, 10" wide. Weight — 7½ lbs.



Z5096 FAIRCHILD MODEL F286 POLAROID OSCILLOSCOPE CAMERA will record two traces on each print with quick-shift mechanism. By shifting traces on the C-R tube, multiple exposures may be placed on each half of the film. Consists of: adapter ring, hood, and Polaroid-Land Camera body with special lens mount and two position shift mechanism. 75mm f/1.9 Wollensak Oscillo-Anastigmat lens with #3 Alphax Shutter having speeds of 1 sec. to 1/100 sec., "time" and "bulb." Fixed Focus (approx. 83%".) Picture Size — 31½" x 41½". Image Size — One-half reduction of scope image. Dimensions: Camera, 10½" x 51½" x 6½"; hood, 11" long by 7½" dia.; adapter, 2" x 65%" max. dia. Weight — Complete, 73½ lbs.

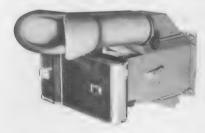
Aerial Cameras

INVENTORY . . . most complete stock anywhere of aerial cameras, accessories and parts.

MANUFACTURER of parts and special components for all aerial cameras and associated equipment.

Consultation Service

Gordon Enterprises Sales Department is comprised of trained and experienced personnel, thoroughly familiar with standard and specialized photographic equipment. While all personnel have an extensive knowledge of motion picture and photo instrumentation requirements, each is a specialist in a particular field. Photographic techniques have become so complex in recent years that it is impossible for any one person to supply all the pertinent information. When you write, wire or call, your inquiry will be referred to a member of the sales force best qualified to answer your questions to your satisfaction. Located in the world center of motion picture, television and photo instrumentation industries, Gordon Enterprises is in constant contact with all latest developments in these fields. The Sales Department is backed by design, electronic and production engineers and close touch with top cameramen and technicians in optics, lab procedures, color, sound, space and missile work. Do not hesitate to relay your equipment problem to Gordon Enterprises.



Z3185 PID OSCILLOSCOPE RECORDING CAMERA MODEL OCP-5000 utilizes a standard Polaroid back which produces finished prints in 10 seconds. Can provide more data in less time and with greater accuracy than any comparable oscilloscope camera available. External rack and pinion adjustment allows shooting exact 1 to 1 object-to-image ratio for easier data reduction. Flat view of graticual gives operator a clear and undistorted view of cathode ray tube. Binocular viewing eliminates parallax and external focusing adjustment provides convenient operation. Equipped with 75mm f/1.9 seven element coated lens in electrically operated shutter with provision for remote control. Shutter opens full in 8 milliseconds. Camera housing is hinged for easy access to shutter and lens. Polaroid back is standard, but other film backs are available on order. Entire camera is constructed with utmost precision, utilizing aluminum castings and finest materials available. Operates on 115 volts AC.

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FLIGHT ANALYZERS

FAIRCHILD PHOTOGRAPHIC FLIGHT ANA-LYZERS are truly precision instruments capable of extremely high accuracy. Analyzer is designed to lower data reduction costs and to provide high order of accuracy of basic data. Analyzer records photographically on a single record, the space trajectory of a moving object. This is accomplished by the operator tracking the object manually with the aid of attached binoculars and keeping an aperture aligned with the object, exposing the sensitized plate in a series of pictures abutting each other. Result is 58 images of the target appearing at equally spaced positions along the trajectory. At the same time that position of the object in space is photographed, recorded on the base of each strip. A the instantaneous time of exposure is unique timing display, driven by a vibrating, tuned reed-controlled motor, presents a record capable of being read to .0005 seconds with a constancy of nearly .001 seconds. The Analyzer record is a true undistorted graph, self plotted by the aircraft at constant scale, showing attitude, position and relative time. It provides the engineer an immediate "quick look" and minimizes data assessment significant points. The optical tracking mechanism in the Flight Analyzer, rotating about the rear nodal center of the lens, displaces a shutter mechanism which lies close to the focal plane. Conversion of rotary to lateral movement is done by a slotted tangent bar automatically providing trigonometric conversion. The lens is fixed and does not rotate, the glass plate with the emulsion is also fixed and does not rotate or move. Lens is an extreme wide angle with acceptance cone angle of 93°. An important feature of the use of glass plates is the dimensional stability and ability to hold a flat focal plane unaffected by atmospheric conditions. Analyzer produces on a parallel fixed plate, a miniature of the full scale movement with unforeshortened images (in the plane recording) and constant scale of movement. True space position and attitude is given regardless of tracking accuracy. Angular data is actual and requires no correction. The data given is a smooth consistant curve, permitting determination of velocity to within 1 mph or less, and accelerations of 0.5 ft/sec/sec. Analyzer operates independently of power lines, utilizing a dry cell pack of six 6 volt batteries. Unit has own battery powered precise timer. By using four different orientations the following information may be obtained: (1) Transition trajectories; VTOL's, ballistic drops, missile launching, converti-plane flights, deadman curve recoveries. (2) Medium and angle trajectories, high speed runs, altimeter calibrations, glide paths, climb outs, landings and takeoffs, rearward and lateral helicopter flights, auto rotation, maximum descent. (3) Vertical rising or descent, helicopter maximum rate of climb or descent, transitions, etc., where maximum vertical range of coverage is needed. (4) Steep trajectories; vertical paths or steep trajectories where control of the vehicle requires more latitude of lateral coverage. Analyzers can also be used for three dimensional space position determinations using the following methods: The first method, uses two Analyzers A & B on opposite sides of the flight path. The second method, uses two Analyzers set on a base line parallel to and on same side of flight path. Format size is 8.62 inches wide and 6.21 inches high. A fiducial marking pattern is projected on opposite sides of the plate, calibrated so that a line connecting the four record dots will fall within .001 of

the plate perpendicular. The binocular bracket is spring loaded with a pivot under the operator's chin to follow vertically, movement of the operator's head. Tracking activates a solenoid-operated, focal plane shutter providing 1/3000 second effective speed in timing display area. Tracking is performed manually by rotating tubular arms which support inertia weights.



25095 FAIRCHILD PHOTOGRAPHIC FLIGHT ANALYZER MODEL FDFA-044 will record flight path lengths from 280 to 24,500 feet and altitudes from 140 to 12,250 feet with offsets from 200 to 17,500 feet. Supplied with 6" Bausch & Lomb Metrogon lens, 6 x 30 tracking binoculars, telescopic alignment scope, fiducial projectors and timing indicator in trunk case with case for power supply. Includes cables and two hand lapped precision plate holders.

25096 FAIRCHILD FLIGHT ANALYZER MODEL FDFA-063 long range unit will record flight path lengths from 154 to 22,900 feet and altitudes from 70 to 10,300 feet with offsets from 200 to 30,000 feet. Construction is similar to above except for 45° wide angle 12" f/5.0 lens.

25097 FAIRCHILD FLIGHT ANALYZER MODEL FDFB-061 ballistics unit is designed for greater accuracy in field positioning or for repeated setups in precisely the same position. Similar to above except for addition of integral precision ground level pads, and a transverse cross sighting telescope for alignment between stations.

Z5104 Short Arms (pair) approximately $17^{1/2}$ " extension. 38" for rectangular arms. Reduces turning radius from 60" to 40". Essential for high acceleration tracking, for vertical or tilted Analyzer setups and useful for operating in small spaces.

Z5105 Mid Shutter Output Pulse, when ordered with Analyzer

Z5106 Mid Shutter Output Pulse, modification

Z5098 Tripod, Model FDTR-042 is made of heat treated aluminum alloy, Delta frame legs and center locking spider, all legs graduated for ready adjustment, complete with fibre case.

Z5099 Swiveling Mount Head, Model FDLH-042 is a spherical mounted adapter head, with four leveling screws and tangential adjusting screw. Provides precise leveling and azimuth orientation. Designed to fit Analyzer base and above tripod head.

Z5100 Plateholders, Model FDPH-042 precision 8" x 10"

Z5101 Plateholder Case, Model FDPC-041 matching to carry up to 10 plateholders.

Z5102 45° Adjustable Angle Bracket, Model FDAB-001, with 0°, 10°, 20°, 30°, 45° positions enables the Analyzer to be mounted with the center of gravity remaining approximately over the tripod center and to record trajectories having vertical rises as well as horizontal sections, complete with fibre carrying case.

Z5103 Vertical Tracking Unit, Model FDVT-041 includes: 90° angle bracket, vertical binocular support, binocular holders, fasteners, short arms, 6×30 binocular with viewfinder recticle and carrying case to hold these accessories, including modification of Analyzer body by adapting top of arm hub to accept, hold and position vertical binocular support; sockets on both sides of cone to permit either side to be base, and aligning vertical and horizontal binoculars for identical viewfinding.

LEASING

Whether you are a free-lance cameraman, an industrial educational film producer or the owner of a large motion picture studio, Gordon Enterprises will tailor a Leasing Plan to fit your individual needs and benefits. Leasing enables you to acquire new equipment, replace obsolete equipment, increase production efficiency and profits without depleting working capital or diluting ownership through equity financing. A lease plan makes available all of the advantages of using equipment you need without the burden of large capital investing and the risks of obsolescence. Operating under a leasing arrangement assures your organization of modern equipment at the least expense. All of the durable items in the catalog (anything that is not consumed in use) can be leased. Leasing is very similar to outright purchase. Decide what you want and immediately upon approval of your lease the items are delivered to you and installed if necessary. Payment is made at intervals arranged to suit your particular organization. Upon expiration of the lease term you have three choices: (1) return the equipment, (2) renew the lease at reduced rates, (3) buy the equipment for a nominal value. Write or call us with your requirements and we will propose a leasing plan to fit your operation.

PHOTO - THEODOLITE AND TRIANGULATION CAMERAS



Z2197 35MM MITCHELL PHOTO-TRIANGULA-TION CAMERA photographs real time and azimuth on each frame of film in conjunction with subject. Using the triangulation method, a target may be pinpointed for azimuth, elevation, and distance. Equipped with synchronous motor drive for operation at 10, 16, and 24 f.p.s.; standard lens is 10 inch f/8, filters, optical system to photograph both stop-watch and azimuth bearing ring on each frame; stop watch graduated in minutes, seconds and tenths of a second; four 400 ft. magazines; special heavy duty counterbalanced tripod head with turntable and bearing ring; tripod and electrical leads. Cases for camera accessories.



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Z2198 35MM MITCHELL CHRONOGRAPH CAMERA MODEL A is designed for use where chronographic record of subject is desired. Cameras are generally used in pairs. The optical systems of the two cameras are constructed so that two separate images are registered on each frame of film: the scene, the face and hands of an illuminated chronometer. Unit consists of 35mm Mitchell High Speed Camera mounted on a modified Friction Tilthead with Shim Plate and Handle. Bracket secured to tripod head provides for mounting a chronometer in a position from which it may be photographed through the back of the film by a secondary lens and shutter system incorporated in camera box.

Z2199 35MM MITCHELL CHRONOGRAPH CAM-ERA MODEL B is similar to above except that chronograph housing is mounted at right angles behind lens barrel so that its illuminated dial is photographed thru a 45 degree prism on to front of film.



A7155 35MM MITCHELL CINE-THEODOLITES are used in pairs to determine the trajectory and velocity of aircraft, missiles, parachutes, etc. They measure horizontal and vertical angles of a point and record a picture of that point and the measurements of its angles on motion picture film. Each unit consists of a 35mm motion picture camera and telescope of the so-called broken axis or elbow type. The angles are indicated on mechanical counters and photographed, together with a time base, on each frame. Triangulation data obtained from the two theodolites, taken simultaneously from two different positions, permit determination in all dimensions of the absolute position of the target. The path and speed of the target can thus be plotted. The theodolite is a specially-built, motordriven camera using 200 ft. rolls of standard 35mm film. (Larger magazines are optional.) It consists of a base with manual azimuth and elevation controls, an optical system, a box containing the film movement mechanism, an electric motor and a detachable film magazine.

A7156 35MM AKELEY CAMERA & INSTRUMENT CO. THEODOLITES are similar to above.

A7157 35MM MITCHELL CINE THEODOLITES (SELSYN MODEL) are similar to above but also equipped with two selsyn repeater motors. The motors are geared to the tracking mechanism of each theodolite, one to the elevation and the other to the azimuth mechanism, so that two theodolites can be connected together to repeat exactly each other's movements in elevation, and repeat in reverse each other's azimuth movements.

A7158 Carrying Trunk

A7159 200 Ft. Magazine

A7160 400 Ft. Magazine

A7161 1000 Ft. Magazine



Z6155 35MM "V" ANGLE OPTICAL THEODOLITE FILM COMPARATOR is designed to visually measure angle formed by longitudinal and vertical axis of target, as recorded on individual frames. Visual readout is available to the operator, and may be recorded on IBM punched cards. Comparator may be used as a system consisting of ten individual desk-type instruments and an eight-station central control unit. Each desk will operate individually with readout direct to IBM Summary Punch, Type 517, 523, or similar. System will also operate through the Central Control Unit as one of two-to-eight-station system, to a single IBM Summary Punch. Punched card contains three 4-digit numbers and one 2-digit number which represents respectively the measured "V" angle, frame number, round number, and station number. Optical film comparator is contained in a separate unit, mounted on the desk unit which contains interlock and readout circuitry.



Z3191 PID NEGA-VIEWER utilizes specially designed circuitry which makes it possible, for the first time. to view negatives as direct positives, with a wide range of size, brightness and contrast control. Savings in time and proofing material is substantial. Provides instrumentation engineers a means of viewing, frame by frame, stills, motion pictures and sequence camera shots immediately, without the delay of waiting for positive prints. Negatives are inserted in carrier on top and "transmitted" to the face of a 17 inch television tube. Enlargement ratio is great enough to pull out the center of a 35mm negative for examination in detail. Brightness control allows operator enough power to view dense negatives as they will eventually print. Contrast control shows how the print will appear on various hardnesses of printing papers. Negative may be viewed as a negative, or a positive can be viewed as a positive or negative, through use of a single phase-reversing switch on the control panel. Specially designed film holder will not scratch negatives. Holders available for various film sizes. All operating and adjustment controls are easily accessible. All circuitry and power supplies are self-contained. Operates on 115 volts AC, 60 cycle current, Weighs only 60 pounds.

z3176 BENSON-LEHNER BOSCAR, MODEL N is a semi-automatic digital machine designed for reading and analyzing a variety of film records such as theodolite data, high speed motion photographs and a wide variety of other records. The BOSCAR is a dual-purpose machine in that it gives ready answers for the quick plotting of technical data, and at the same time provides precise readings for technical analysis. Equipment consists of integrated optical and measuring systems. The optical system consists of a projector, mirrors and a viewing screen assembled in a rigid frame. The usable area of the screen is approximately 21" x 21". The measuring system utilizes a 5 inch diameter ball to control the position of two precise cross-wires. With the ball control, the operator drives the intersection of the cross-wires to any point on the screen in one coordinated movement. Simultaneously, the X and Y crosswire commutators are activated, translating the crosswire position into coded signals, which are stored and displayed digitally when the RECORD bar is depressed. Readout is programmed with a matrix of pushbuttons. Depressing these pushbuttons will automatically pre-program the output sequence — e.g., X₁, Y₁, X₂, X₃, Omit, Omit, Omit, An optional feature, rotation of the projector, provides theta (angular) measurement in addition to X (horizontal) and Z (vertical) measurements. Angular readout translator and zero-out. Angular measurements are normally made separately from X and Y.

Z3185 BENSON-LEHNER OSCAR MODEL N-2 is a semi-automatic record reading machine designed to expedite the analysis of the data recorded as images or traces on transparent, translucent or opaque film or paper. The X-Y coordinates of a position on the record are measured by manually aligning two mutually perpendicular crosslines to the point to be measured. Automatic readout to the various output units is initiated by pressing a switch. The operator can align to the next point to be measured during the readout cycle. This model of the OSCAR is designed to emphasize versatility in handling various types of records. Provision is made to project records 89mm or less in width through the addition of one of the several standard projection systems. Sequence of data read out of the machine is entirely under control of the operator since an extremely flexible output format control patchboard is included as an integral part of the machine. Elements to be controlled by this output sequence device include: number of digits, sign position, typewriter control signals, such as tab or carriage return, fixed digits, repetitive subroutines, and generation of special codes for later use as computer instructions.

Photogrammetry

Gordon Enterprises has the answers to all your needs in aerial photography and plotting equipment from pocket type stereoscopes to complex stereo plotting equipment.

Z3190 BENSON-LEHNER OSCAR MODEL K OSCILLOGRAM AND STRIP CHART RECORD READER is designed for the smaller laboratory and test facility. Measures trace amplitudes, applies a linear or non-linear calibration, converts the data to engineering units, and automatically operates a typewriter and a keypunch. The simplified operation of this semi-automatic record reader permits more accurate reduction of data in shorter elapsed time, with fewer man-hours, at reduced total cost.

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Z3196 BENSON-LEHNER OSCAR MODEL F OSCILLOGRAPH TRACE READER is a reading machine designed to expedite the analysis of various continuous trace records appearing either on film or paper. Records up to 12½ inches in width may be accommodated in the unit. While the actual alignment of the traces is performed manually, the machine automatically applies either linear or non-linear calibrations to the amplitude measurement and furnishes a resistance output proportional to the calibrated amplitude. Several types of Benson-Lehner plotters and automatic tabulators are available for translating the resistance output of the OSCAR into a graphic or printed record.

Z3195 BENSON-LEHNER DECIMAL CONVERTER MODEL F is an analog-to-digital converter that converts potentiometer input resistances to decimal output. Lightbank and control of Electrotyper and card punch are standard outputs, with tape punch control as optional. Basic circuit of the Decimal Converter is a resistance ratio bridge, designed to sense the position of an input potentiometer and convert it to decimal form. The input resistance potentiometer forms one arm of the bridge and the balancing arm is composed of coded decimal resistances. ance is obtained by a one-scan system, where the coded resistors are introduced, sampled by the balancing amplifier, and held in or dropped out, depending upon whether an overbalance is sensed. At the completion of a single scan, a null is reached. An error detector indicates an error and prevents readout if the converter balances incorrectly or if the input changes during the balancing operation.

Z3180 BENSON-LEHNER OSCAR FILM PROJECTION UNIT is used in conjunction with any of the Benson-Lehner OSCAR record reading machines. It is used primarily in the reduction of the various film records where incremental pull-down of the film is not required. The projection unit must be specified at the time an OSCAR is ordered. Unit handles 16/35/70mm film. Film handling of 59 and 89mm (or any other film up to 89mm) is available as an optional extra. Projection unit provides reel capacity of 200 feet for 16 and 35mm and 100 feet for 70mm film. Film transport is accomplished by means of four motors — two AC and two DC — which provide high and low speed ranges.

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Z3369 TELECOMPUTING CORP. UNIVERSAL TELEREADER provides means for accurrately measuring distances on all types of paper or film records from 16mm up to 12 inches in width in unlimited lengths. These distances are measured from arbitrary fixed references along two orthogonal axes. Unit incorporates all necessary equipment for transporting the record for magnifying and projecting a section of the record on a viewing screen and for converting the measured distance into electrical information. Telereader is mounted in a console type cabinet with a sloping ground glass screen on which the image of the record being measured is projected. A dual orthogonal cross wire system is provided immediately behind the ground glass projection screen. All hand and foot controls are so located that they may be manipulated by a seated operator with a minimum of fatigue. Write for complete specifications.

CAMERA HOUSINGS

23197 BENSON-LEHNER WATER JACKET HS-16BWJ is designed to protect the Benson-Lehner Standard Model HS-16B Photographic Recorder from the extremes of temperature encountered in many military and industrial applications. Jacket consists of a double walled stainless steel jacket on the front, sides and top. The bottom of the jacket has a stainless steel plate welded onto the double walled portion. A QRM-16 quick release mount is mounted on the base of the jacket to facilitate the quick removal of the recorder without use of special tools. Size: 11¾" x 5½" x 7½" less lens tube. Weight: Approx. 25 pounds.



Z8875 SENTINEL PM-101RC RADIO CONTROLLED PROTECTIVE CAMERA HOUSING is made from formed fiberglass laminate. Will withstand 900°F. temperature for short periods and up to 600°F. for longer durations. Condensation has been minimized by a styrofoam lining creating an excellent insulation from extreme cold or hot temperatures. Housing has been developed to protect instrumentation cameras from adverse environmental conditions and to provide a radio-link control for remote cameras. Will accept Benson-Lehner HS16D2, Fairchild HS-100, Milliken DBM-3 and DBM-4, Photosonics 16-1B, Fastair and other cameras of similar configuration. Contains a transistorized multichannel Citizens Band receiver; allows camera to be started at any desired time. Eliminates need for cabling and allows for freedom of camera placement.

Z8876 SENTINEL PM-101 PROTECTIVE CAM-ERA HOUSING is similar to above but without radio control feature.

Z8877 SENTINEL PM-201 PROTECTIVE CAM-ERA HOUSING is designed for 35mm cameras with configuration of the Mitchell 35mm camera.

Z8878 SENTINEL PM-301 PROTECTIVE CAM-ERA HOUSING is designed for 70mm cameras such as Benson-Lehner, Mitchell, Hulcher and Photosonics.

Z8879 PM-401 four-channel transmitter for control of 4 PM-101 RC housings. DC power.

Z8880 PM-402 four-channel transmitter. Same as above but AC-DC power.

Z8881 PM-501 Receiver for use with PM-401 transmitter with one decoder.

Z8882 PM-511 Decoder only.

Z8883 PM-601 12 volt portable power supply. Non-spill aircraft type in carrying case.

Z8884 PM-701 12-volt battery charger. Selenium rectifier with meter and connecting cables.

Z8885 PM-801 Timing light generator will provide 100 or 1000 cps pulse.

Z8887 PM-1001 Carrying case for PM-101 and 101RC housing.

Z8888 PM-1002 Carrying case for PM-401 transmitter.

Z8886 PM-901 Replacement battery for PM-501 receiver.

Z8871 HALLAMORE WEATHERPROOF HOUSING designed to enclose Fairchild HS401 High Speed Camera against wind, dust and rain. Inside dimensions: 18" Long X 14" Wide X 12" High. Other makes of cameras may be enclosed. Constructed of aluminum with access doors at side and top with rubber seals and quick-disconnect type latches. Camera window is of high quality optical glass. Sealed electrical connector for power supply.

Z8872 HALLAMORE WEATHERPROOF HOUSING to enclose Fairchild HS 501 Power supply Unit. Sealed electrical connector.

NOTE: Other types of instrumentation cameras may be enclosed in housing upon request.

G2491 WOLLENSAK WF-360 XENON LAMP for high-speed motion picture photography consists of a control unit, a lamp housing containing a focusable paraboloid reflector, the Xenon Lamp, interconnection cables, and telescopic stand with casters. Quartz lamp bulb furnishes color temperature of 5,700°K. Small illumination source excellent for Schlieren and shadowgraph photography. Designed to operate from a battery supply of 36 to 42 volts. A volt meter and an ammeter indicate the power being dissipated in the lamp during operation. Life of lamp is virtually limitless.

G4021 SYLVANIA FLOOD FLASH FLASHBULB FF-33 is a high intensity long duration flash lamp with an average flash duration of 1.75 seconds. Ideal for use in high speed motion picture studies and other applications requiring a self-contained, brilliant, long duration flash. One FF-33 will expose film to a density equal to that of three R-34 or RSP-2 photofloods. May be used with a 7 inch polished reflector, with lamp in vertical position, base down. Requires 4.5 to 45 volts for flashing. A single flood flash lamp will expose 37 feet of 16mm film at 1000 frames per second, and 75 feet of 16mm film at 2000 frames per second. camera speeds several lamps may be flashed in sequence of 1.75 seconds. If more light is required two or more lamps may be flashed simultaneously. Color temperature is 3800°K.

Z3370 GENERAL RADIO MICROFLASH TYPE 1530-A is a high-speed, single-flash light source with a duration of 2 microseconds (2/1,000,000) designed by Dr. Harold Edgerton. Microflash differs from a true stroboscope, because it cannot be used for continuous flashing for visual observation. Duration between flashes is 10 seconds. Used for blurless photography of objects moving at high speeds such as projectiles, disintegration of high-speed rotors and propagation of fractures in various materials in engineering and industrial fields. Microflash may be used with any conventional camera. Flash can be tripped manually, by a contactor or by use of sound or pressure sensitive microphone pick-up. Power supply and trigger circuits assembled in one case. Lamp is housed separately, but cases lock together. Power requirement: 105 to 125, 210 to 250 volts, 50 to 60 cycles. Input 70 Watts. Dimensions: 24½ "X 13½" X 11¾". Weight: 72 pounds.



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X5150

X5150 COLORTRAN INDUSTRIES FOTO-SURE IDENTIFICATION CAMERA produces an identifica tion photo of a person on a security pass or identification badge on 10 second Polaroid film. Eliminates waiting time for processing photos and passes. Both are photographed simultaneously with an ingenious "double lens" camera that records person's portrait and filled-out pass in a single exposure. Camera is a completely self-contained unit equipped with its own lights and folds into a compact carrying case. Camera utilizes a "gimballed" type mount which permits framing subject regardless of height. Pass is filled out and placed inside carrying case. Internal copy board is illuminated and automatically tracked regardless of camera framing. Subject and pass are always perfectly aligned. Lens depth of field permits subject to be as much as one foot from focused distance without affecting image sharpness. Lighting system produces excellent skin tones. Pass may be filled out in pencil. ink, colored pencils, crayons or various colored typewriter ribbons. Produces $2\frac{1}{4}$ " x $3\frac{1}{4}$ " badge. May be modified or constructed on special order to produce any combination of identification photos/badges/passes in various sizes. When combined with lamination equipment (optional) camera can produce completely tamper-proof badges meeting the highest security standards. Closed case measures $21\frac{1}{2}$ " x 12" x 15" and weighs only $25\frac{1}{4}$ pounds. Standard 500 watt R 40 lamps which consume 4.5 amps at 110 volts AC, furnish subject illumination. Polaroid 300 film is recommended.

REPAIR SERVICE

Gordon Enterprises has factory trained and experienced repairmen equipped with all of the latest tools, machines, test equipment, jigs and gauges necessary to properly repair your camera equipment. Our stock of parts, many of which are manufactured in our own shops for some of the leading camera makers, plus our uniquely qualified personnel, makes Gordon Enterprises the ideal place to ship your equipment for prompt repair to the same high standards as the original manufacturer. A repaired camera leaves our shops only if its performance equals or exceeds new equipment. Arangements may be made for fast round-trip air shipment. Our extensive rental stores of motion picture and photo instrumentation equipment — the world's largest — are available to serve you while your equipment is being repaired.

INDUSTRIAL SECURITY

Through association with Standard Security Systems, originators and national leaders in the field, Gordon Enterprises is pleased to offer for the first time in any motion picture catalog, a source of any and all types of material pertaining to the safe handling and safe guarding of classified film and photographic ing of classified film and photographic material. While we have a large stock of items required in this field, only a partial listing can be described. However, we will be pleased to send a separate catalog or additional information pertaining to any related problem. Included in the catalog are all types of approved storage facilities, as well as every kind of printed form for routing, recording and filing classified film material. Of particular interest is a compact portable Film Destruction Unit which can be used in any small library or office to reduce film to a fine powder. Along with materials available in the above mentioned catalog, Standard Security in conjunction with Gordon Enterprises offers a free consulting service to our customers in all matters pertaining to Industrial Security in the motion picture field. To avail yourself of the above services write, wire or call Gordon Enterprises.

STANDARD SECURITY SYSTEMS

C1889 SSS CLASSIFIED WASTE FILM CONTAINER NO. W-1 is an attractive piece of office furniture for temporary storage of classified waste film pending proper disposition. All steel electrically welded construction. Built-in Sargent and Greenleaf three-position, dial type combination lock. Entry point for classified waste is through a flat tube that effectively resists "fishing expeditions." Canvas bag inside catches film and expedites removal and handling. Fully enclosed bottom. Designed to be fastened to any fixed or heavy object (wall, desk, file, etc.) to prevent unauthorized removal or tampering. Available in all standard office furniture colors. Size: 15" x 15" x 30".

C1890 SSS CLASSIFIED WASTE FILM CONTAINER NO. W-2 is similar to above except for size. Size: 21" x 21" x 42".

C8432 SSS JAY-BEE FILM DISINTEGRATOR instantly destroys all classified material without chemicals or water. All types of film, paper, cards, photographs, typewriter ribbons, carbon paper, blueprints, ledger sheets, etc. are disintegrated in dry form. Paper clips, Acco binders. staples and rubber bands are ground up without damage to the machine. Self-contained, completely portable unit may be installed anywhere. Uses no water or chemicals. Waste contained is reusable or disposable. Disintegrated materials flow into bag concealed in cabinet. No dust, dirt, mess or fuss. Disintegration of classified materials accomplished by this method meets requirements of Department of Defense, Industrial Security Manual. Two models are available in two capacities. Write for complete data.

C1892 SSS SELF-ADHERING TAPES for film containers are available in black lettering on green background. Eliminates "nitrate scares" in film processing labs as red tape is accepted as universal color code for nitrate film. Available with CONFIDENTIAL, SECRET or SECRET — RESTRICTED DATA — ATOMIC ENERGY ACT OF 1954 printed the entire length of roll. (Please specify desired identification.)



X5155 FAIRCHILD IDENTIFICATION CAMERA MODEL F430 utilizes a Polaroid back for production of 10 second photographs for badges and passes. Choice of six different picture formats are available: (1) four identical pictures of one person; (2) two pairs each of two different persons; (3) front and profile of one person, head only; (4) front and profile of one person, three-quarter body view; (5) four different shots of one person; (6) different shots of four individual persons. Camera is complete with shifting mechanism, 90mm f/3.5 lens mounted in Alphax shutter, close-up lens, sliding mask, stereo attachment, timer and Polaroid film back. Shutter speeds of 1/25 second to 1 second provided. Heavy duty, light weight tripod, equipped with positioning bar, elevating mechanism, numbering panel and plastic numbers. Polaroid wink light unit with synchronizing cable. Lighting and focus are pre-set. Simply position sub-iect, with aid of positioning bar, and trip shutter. Wink light provides frontal illumination. If better modeling is desired a secondary light source may be used overhead and to one side.

C1065 SSS CLASSIFIED FILM LEADERS consists of professional leaders for classified films with the appropriate classification and extracts of the Espionage Act or the Atomic Energy Act of 1954 indicated thereon. Ideal for Defense Contractors producing classified motion pictures as set forth in the Industrial Security Manual. Leader may be ordered with either black lettering on white background, or the reverse, in 1000 ft. lengths, in either 16mm or 35mm widths. (Please specify text desired and whether black on white or reverse in 16mm or 35mm.)

C1891 SSS SECURITY WRAP-N-MARK TAPES are tough, tear resistant packaging tapes designed for sealing inner wrapper, packages and containers of classified material. Available in wet or dry tapes (please specify) with CONFIDENTIAL, SECRET or SECRET — RESTRICTED DATA — ATOMIC ENERGY ACT of 1954 printed the entire length of roll. One, two or three inch widths (please specify). Lettering is bright red, in skeleton type to reduce probability of markings showing through outer wrapper. One-half inch lettering is used on one inch tapes and proportionately larger lettering on two and three inch widths. Wet Paper Tapes are on 60 pound gummed paper tape to fit most standard dispensers. Dry Self-adhering Tapes, on heavy Kraft paper with Perma-stick cement, are excellent for sealing hard to wrap packages such as film cans, metal shipping containers or other packages with non-porous surfaces.

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